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No. 01-

IN THE
Supreme Court of the United States

ROBOTIC VISION SYSTEMS, INC.,

Petitioner,

v.

VIEW ENGINEERING, INC. and
GENERAL SCANNING, INC.,

Respondents.

ON PETITION FOR A WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

PETITION FOR A WRIT OF CERTIORARI

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QUESTIONS PRESENTED

I. Whether the Federal Circuit erred by eliminating the constitutional and statutory requirement of utility set forth in 35 U.S.C. § 101 when it held that this Court's "ready for patenting" prong of the "on sale" test under 35 U.S.C. § 102(b), set forth in *Pfaff v. Wells Elecs.*, 525 U.S. 55 (1998), is satisfied by an invention that is not yet known to work satisfactorily for its intended purpose.

II. Whether the Federal Circuit erred by ignoring the express directive of this Court in *Pfaff* to consider additional development work after an offer for sale in determining whether an invention is "on sale" under 35 U.S.C. § 102(b), thereby effectively eliminating the second prong of the *Pfaff* test, which requires either a reduction to practice or "drawings or other descriptions" sufficiently specific to enable a person skilled in the art to practice the invention prior to the critical date.

STATEMENT PURSUANT TO RULE 29.6

Petitioner Robotic Vision Systems, Inc. states that it has no corporate parents, and that no publicly held company owns 10% or more of Robotic Vision Systems, Inc.'s stock.

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PETITION FOR A WRIT OF CERTIORARI

Petitioner Robotic Vision Systems, Inc. respectfully petitions this Court for a writ of certiorari to review the judgment of the United States Court of Appeals for the Federal Circuit in this case.

OPINIONS BELOW

The district court's opinion (per Baird, J.) granting defendant's summary judgment motion (Appendix ("Pet. App.") 41a-60a) is published at 39 U.S.P.Q.2d 1167. The court of appeals' opinion (per Lourie, J., joined by Clevenger and Rader, JJ.) reversing in part, vacating in part, and remanding with respect to the on-sale issue (Pet. App. 27a-40a) is published at 112 F.3d 1163. The district court's subsequent decision on remand (Pet. App. 12a-26a) is not published, and the court of appeals' opinion (per Lourie, J., joined by Rader and Bryson, JJ.) affirming that judgment (Pet. App. 1a-11a) is published at 249 F.3d 1307.

STATEMENT OF JURISDICTION

The court of appeals entered its opinion and order on May 7, 2001. Petitioner invokes this Court's jurisdiction under 28 U.S.C. § 1254(1).

STATUTORY PROVISIONS INVOLVED

The provisions of the Patent Act of 1952, 35 U.S.C. § 101, *et seq.*, which are relevant to this petition are reprinted in the Appendix at 61a-64a.

STATEMENT OF THE CASE

Petitioner Robotic Visions Systems, Inc. ("RVSI") is the assignee of U.S. Patent No. 5,463,227 ("the '227 Patent"), which is directed to a method of inspecting the leads of integrated circuit devices (chips) while the chips sit in a multi-pocketed tray. A50-67.[1] In December 1990, two of Petitioner's employees

1. Cited portions of the parties' Joint Appendix that was submitted to the court of appeals are cited as "A__."

envisioned and discussed an improvement to RVSI's then-existing inspection machine, the LS-2000, which they speculated might improve the efficiency of the system. What the employees envisioned was a scanning system in which a laser beam would scan multiple chips in a full row or column of the tray, instead of scanning individual chips one at a time. As of December 1990, this new method had never been tried or tested, and the inventors did not know whether this new scanning method, if employed in the LS-2000, would be operable or whether it would answer the purpose intended. A1213-1215.

No further work was done on the idea until March or April of 1991, when one of the co-inventors instructed a colleague to begin writing the software code necessary to implement the new scanning method of inspection. A1236-1237. The court of appeals found that the inventors' skepticism as to the workability of the invention notwithstanding, the oral communication of this concept of improving a prior art machine by one of the co-inventors, Mr. Yonescu, to his fellow employee, Mr. Briceno, and his instruction for Mr. Briceno to commence work on the project, sufficed to satisfy this Court's "ready for patenting" test articulated in *Pfaff v. Wells Elecs.*, 525 U.S. 55 (1998).[2] Pet. App. 7a-9a.

The court of appeals' holding warrants this Court's immediate review because it indiscriminately applies the *Pfaff* test in a manner that is inconsistent with this Court's decision in *Pfaff* and other Supreme Court decisions, as well as inconsistent with other provisions of the Patent Act. A holding that a patentee forfeits his right to a patent because his invention is "ready for patenting" based on an oral communication of what is essentially an early concept of an invention cannot be reconciled with traditional and proper notions of the

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2. Another requirement for the on-sale determination, *i.e.*, whether there was a commercial offer for sale, was not at issue below. The sole issue before the court of appeals was whether the "ready for patenting" test was satisfied.

"on-sale bar" under 35 U.S.C. § 102(b).[3] The court of appeals' decision, if left uncorrected, will undoubtedly have a chilling effect on cooperative, intra-company liaisons, which are hallmarks of scientific development. The court of appeals' decision is also likely to produce confusion among the lower courts in their application of *Pfaff*,[4] with some courts assuming that a mere concept is sufficient to meet the *Pfaff* " ready for patenting" test and others courts holding that more than just a concept is required.[5]

I. Summary of the Invention

Inspection of integrated circuit devices involves scanning the metallic leads of each integrated circuit device with a laser sensor to ensure that the leads are properly located in three-

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3. 35 U.S.C. § 102(b) prohibits an inventor from obtaining a patent if his invention was on sale more than one year prior to the date that he files his patent application. Specifically, the relevant portion of the statute states that "[a] person shall be entitled to a patent unless . . . (b) the invention was . . . on sale in this country, more than one year prior to the date of the application for patent in the United States. . . ."

4. *See, e.g.*, Timothy R. Holbrook, *The More Things Change, The More They Stay The Same: Implications of Pfaff v. Wells Elecs., Inc. and the Quest for Predictability in the On-Sale Bar*, 15 Berkeley Tech. L.J. 933, 939 (2000) (reviewing the lower courts' application of the Supreme Court test, and concluding that the new test, as applied, has not added certainty to this area of law).

5. *See, e.g., Space Sys./Loral, Inc. v. Lockheed Martin Corp.*, 1999 WL 1278382, at *8 (N.D. Cal. Dec. 21, 1999) (granting summary judgment of invalidity because the patentee conceded that the invention was conceived prior to the offer for sale, although questions of fact remained regarding whether the drawings and descriptions surrounding the offer were enabling); *Lacks Indus., Inc. v. McKechnie Vehicle Components USA, Inc.*, 55 F. Supp. 2d 702, 734 (E.D. Mich. 1999) ("[T]he evidence shows that their inventions were ready to be patented as of May 1992. At that time, Chase [the inventor] had conceived of [the invention]. Thus the second prong of the *Pfaff* test is satisfied."). *But see Abbott Labs. v. Geneva Pharm., Inc.*, 182 F.3d 1315 (Fed. Cir. 1999) (suggesting that conception is irrelevant to the on-sale bar).

dimensional space on each chip. In order to do so, highly precise measurements on the order of microns (one millionth of a meter) must be made on each lead on a chip. A critical objective of the machines used to perform such inspections is to obtain accurate data to determine whether any chip is defective. If the measurements made and the data obtained for the chips are not accurate, the inspection machine and method would be essentially useless.[6] A1214-1216; A2087-2088.

According to the invention, chips are typically placed in trays having a rectangular array of pockets (*i.e.*, arranged in columns and rows) for the inspection machine to inspect the leads. Prior to the discovery of the invention in the '227 Patent, RVSI had used and sold inspection machines whose three-dimensional sensors first scanned all of the leads of a single chip in a pocket before moving on to scan the leads of the chip in the next pocket. Because it was necessary for the sensor to accelerate and decelerate multiple times to traverse the length of each side of a square or rectangular chip, extra time was needed to complete the scanning process, thereby significantly reducing the overall efficiency and throughput of the system. As a result of the repeated requests from its customers for higher throughput, RVSI was considering various ways to improve the overall speed of its inspection system.[7] A1160-1162.

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6. The specification of the '227 Patent stresses the importance of the data obtained during the scanning process. '227 Patent, col. 3, l. 66 - col. 4, l. 1 ("Because the exact location of the lead tips 24 is very critical, it is desirable to scan them at the highest possible resolution.").

7. The objective of improving the throughput of existing machines was expressly conveyed in the '227 Patent, which is entitled "Method For Obtaining Three Dimensional Data from Multiple Parts or Devices in a Multi-pocketed Tray." For example, the specification states that "[m]ethods and arrangements are provided to *efficiently use 3-D vision systems to measure selected features of objects* that are semi-constrained in compartmented trays having a uniform geometric arrangement. The methods are particularly well-suited for *optimizing the 3-D measurement of leads* on integrated circuit devices which are packaged in trays." '227 Patent, Abstract (emphasis added).

In December 1990, Mr. William Yonescu and Mr. Howard Stern of RVSI discussed the idea of scanning chips in a tray in a column and row manner, *i.e.*, scanning the leads by traveling down one column (or row) and collecting data for one side (including the metallic leads) of all the chips in that column (or row), and then moving the scanner to traverse the tray in the opposite direction to collect data from the remaining sides of those chips, and so on, until the entire array of chips is scanned. This new method of scanning reduced the number of accelerations and decelerations that the sensor would have to make to collect the data for all the chips. Messrs. Yonescu and Stern recognized, however, that while this method reduced the number of accelerations and decelerations that the sensor would have to make, it raised a host of other technical and practical issues and concerns, such as how the information obtained would be pieced together for each particular chip, exactly how much surface area would have to be scanned to ensure that all the leads in a particular column or row have been covered, and how to ensure that the sensor movement across the entire tray would not result in unwanted chip, sensor, and/or tray movement. This latter circumstance was a special concern since any perturbation when performing row and column scanning destroys the accuracy of the data for all chips that have already been partially scanned, rendering the invention useless. A1214-1216; A2087-2088; A1165-1166.

After months of development work and testing following Mr. Yonescu's initial instruction to Mr. Briceno,[8] the inventors were finally convinced that the column and row method was actually a viable and operable method of obtaining the precise measurements necessary for inspecting chips. Having determined that the invention could indeed work for its intended

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8. Mr. Briceno's task was to write the software that would be loaded into the inspection machine to allow it to operate in the column and row manner. Mr. Briceno, however, did not know whether the invention would work any more than the inventors did.

purpose, the inventors filed a patent application covering this new method, and the patent-in-suit was subsequently granted.

II. The Circumstances Surrounding the Sales Activities and the Development of the Invention Prior to the Critical Date

At the time that Mr. Yonescu and Mr. Stern first discussed the idea of column and row scanning, it was not a high priority item on their engineering agenda. They pursued various other ideas for improving the efficiency of the existing machines, precisely because they did not know if the new column and row method of inspection was feasible or if it would answer the purpose intended. It is undisputed that they did not commence work on this project until March or April of 1991. A1165-1166, A1172.

In March 1991, Intel was evaluating one of RVSI's existing LS-2000 machines, which performed inspections one chip at a time. Mr. Lafferty, a representative from Intel, granted RVSI conditional buy-off approval if the LS-2000 machine could be improved to meet Intel's throughput specifications. A6269-6272. One idea, among many, that was mentioned to Mr. Lafferty for possibly achieving that objective was to develop and incorporate the column-and-row concept into the LS-2000. When Intel requested that the column and row method be implemented by June 3, 1991 on the machine that it had purchased, RVSI acceded to that request because it did not want to lose such a valued customer. However, RVSI was not able to meet this aggressive deadline. The machine that was delivered to Intel did not perform the column and row method. In fact, the column and row method was not operable until mid-August 1991, well after the critical date.[9] It is undisputed that RVSI

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9. The critical date is measured from the date that the patent application is filed. In this case, the application was filed on June 24, 1992, and the critical date (*i.e.*, the date before which the invention must not have been "on sale") is June 24, 1991.

did not implement the column and row method on the machine sold to Intel until August of 1991. A1182; A1233-1234; A3247-3248.

After Intel's request that the column and row method be incorporated into the machine that it had purchased, Mr. Yonescu asked Mr. Briceno to start writing the software code ("code") necessary to carry out a column and row method of scanning instead of the one-chip-at-a-time method. Mr. Briceno proceeded by making significant modifications to the existing inspection machine software in an attempt to implement Mr. Yonescu's concept, and concentrated his initial efforts on getting the sensor to simply move consistently in the column and row manner without crashing into the system's mechanical stops. Only after that portion of the code was sufficiently developed did Mr. Briceno turn his attention to writing the code segments that dealt with gathering and compiling the data for each chip. This was done over the course of the next few months, with much discussion and collaboration in the interim with the inventors and various other employees at RVSI. A1240-1244.

Even after the missed target date for the Intel machine, and on the eve of shipment of another LS-2000 machine (also a one-chip-at-a-time machine) to a different customer,[10] the column and row method was still not operable. A note from the

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10. The machine that was sold to this other customer, Samsung, was sold as a one-chip-at-a-time machine. There was no disclosure to Samsung about the concept of the column and row method at all, because RVSI did not want to promise the column and row method to any other customers when it had not yet ascertained whether the column and row method would work. A2460-2461. All of the testing and development work at RVSI to implement the column and row method was performed on the inspection machine that was eventually shipped to Samsung. The machine was shipped on June 30, 1991, as a one-chip-at-a-time machine, however, because at that time the column and row method still was not operable or known to work for its intended purpose. A1179-1182; A1244-1245.

engineer in charge of testing, Mr. Bilodeau, to RVSI's Chief Executive Officer, Mr. Pat Costa, written on or after June 22, 1991, stated that RVSI had no way of making the column and row method work at that point in time.[11]

III. The Proceedings and Decisions Below

RVSI filed a patent infringement suit against Respondents on October 31, 1995 pursuant to 28 U.S.C. § 1338(a). The district court, on a motion for summary judgment from Respondents, held that the patent-in-suit was invalid for failure to disclose the best mode under 35 U.S.C. § 112, because it did not specifically state that software must be used to carry out the claimed method, Pet. App. 58a-59a, and because the invention was on sale in this country prior to the critical date, June 24, 1991, under 35 U.S.C. § 102(b), Pet. App. 54a.

The Federal Circuit reversed the district court's best mode findings, and remanded the case with respect to the on-sale bar. In its mandate, the Federal Circuit stated that the sole remaining question was ". . . when was the software complete?" If the software was completed before the critical date, then the invention would have been "substantially complete" and the patent invalid due to the on-sale provision of the patent statute. If the software was not completed by the critical date, then the invention would not be substantially complete and could not have been "on sale." Pet. App. 38a.

Shortly after the Federal Circuit rendered its opinion, this Court decided the *Pfaff* case. In that case, this Court set forth a test for the on-sale bar that sought to balance competing policies: the interests in providing inventors with a clear standard for determining when a patent application must be filed and encouraging innovation, on the one hand, and preventing monopolies that unnecessarily stifle competition on the other.

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11. Mr. Bilodeau's note stated: "[w]e have at this moment no way to pass any form of reasonable accuracy test. . . . This plus our inability to provide adequate field support of this installation remain 'enormous' risks." A6135.

Pfaff, 525 U.S. at 63-65. This Court rejected the Federal Circuit's "substantially complete" standard as both unclear and as having no textual support in the patent statute, and stated that an invention refers to a complete concept, not one that is merely substantially complete. *Id.* at 65-66. The court held that an invention is on sale if two conditions are satisfied: (1) the product is the subject of a commercial offer for sale, and (2) the invention is ready for patenting. *Id.* at 67. The Court further held that its "ready for patenting" test can be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention. *Id.* at 67-68.

On remand, the district court cited *Pfaff* and set forth three separate bases for holding that the claimed method was "ready for patenting." The court held that the disclosure of the concept of column and row scanning to Mr. Lafferty (of Intel), who subsequently asked that this idea be incorporated into the machine that Intel purchased, made the invention "ready for patenting." Pet. App. 23a. The district court next held that the oral disclosure from Mr. Yonescu, a co-inventor, to Mr. Briceno, a software engineer, instructing him to begin writing the necessary software, rendered the invention "ready for patenting." Pet. App. 23a-24a. The court further held that the invention was reduced to practice by May 22, 1991 based on the development of the software system at that time (which could not collect any data), and that the invention was ready for patenting as of that date. Pet. App. 24a.

On May 7, 2001, the Federal Circuit affirmed the district court's decision, relying solely on the instruction given by Mr. Yonescu to Mr. Briceno in March or April 1991 to hold that the invention was ready for patenting. Pet. App. 7a. The court of appeals did not rely on the other two bases, as it could not, because there was no evidence, much less clear and

convincing evidence, that the disclosure to Mr. Lafferty was enabling or that the claimed invention was reduced to practice prior to the critical date.

The court of appeals, in its opinion, expressly stated that an inventor's skepticism about the operability of the invention is not a factor or a part of the "ready for patenting" test articulated by *Pfaff* and that an invention can be ready for patenting despite such skepticism. Pet. App. 9a. Without addressing the requirements for enablement under 35 U.S.C. § 112, the court of appeals also found that Mr. Yonescu's instruction to Mr. Briceno rendered the invention "ready for patenting," Pet. App. 7a, which assumes that the invention, which is implemented using computer software, can be enabled merely because a programmer was instructed to begin writing the program necessary to carry out the invention (prior to the critical date), and eventually finished that task (after the critical date). This, in effect, is a determination that conception is sufficient to meet this Court's "ready for patenting" test. In this manner, the court of appeals, while attempting to follow this court's directive regarding the on-sale bar articulated in *Pfaff*, expanded that decision well beyond its intended scope, and completely disregarded the implicit requirements of utility and enablement under the *Pfaff* test.

This petition for a writ of certiorari followed.

REASONS FOR GRANTING THE WRIT

This petition should be granted for several reasons. First, the Federal Circuit's conclusion that skepticism of an inventor regarding the workability of his or her invention is irrelevant to the "ready for patenting" determination eliminates the constitutional and statutory requirement of utility, and demonstrates the Federal Circuit's fundamental misunderstanding of the *Pfaff* test. This Court should issue a writ of certiorari to prevent any confusion regarding its opinion in the lower courts.

In *Pfaff*, this Court held that an actual reduction to practice in the form of a physical embodiment is not required to trigger the statutory grace period for the on-sale bar. *Pfaff*, 525 U.S. at 66. The thrust of the Court's decision was that there are circumstances in which an invention is complete, and an inventor can obtain a patent, even if the invention has not been reduced to practice. In such circumstances, it would not promote the policies underlying section 102(b) to hold that an invention for which a patent can be obtained cannot technically be "on sale."[12] Thus, the Court set forth a test that measures the statutory grace period from the moment that an inventor could have applied for a patent, *i.e.*, from the moment that an invention was "ready for patenting." Petitioner submits that in so holding, the Court nevertheless left intact the requirement that an inventor be satisfied that his invention will work for its intended purpose before the invention can be deemed "ready for patenting."

If the Federal Circuit's expanded interpretation of the "ready for patenting" test is adopted, and evidence of inventor skepticism is disregarded, the test articulated in *Pfaff* would conflict with the constitutional and statutory requirement of utility. It is well settled that one can only patent that which is "useful,"[13] and this Court has previously recognized that to meet this utility requirement, a new product or process must be shown to be operable or "capable of being used to effect the object proposed." *Mitchell v. Tilghman*, 86 U.S. (19 Wall.) 287, 396 (1873). Clearly, an invention cannot be "ready for patenting" if this utility requirement is not met. Nevertheless, this is in effect what the court of appeals has decided by holding that skepticism of an inventor regarding the operability of his invention is not a part of the "ready for patenting" determination.

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12. *Pfaff*, 525 U.S. at 66 ("It is true that reduction to practice ordinarily provides the best evidence that an invention is complete. But just because reduction to practice is sufficient evidence of completion, it does not follow that proof of reduction to practice is necessary in every case.").

13. U.S. Const., art. I, § 8, cl. 8; 35 U.S.C. § 101.

The test of utility has for decades been subsumed within the "reduction to practice" test that was previously employed by many courts to determine when an "invention" was complete. In light of this Court's recent pronouncement that an actual reduction to practice is not necessary for an invention to be "ready for patenting," the court of appeals has apparently decided that it need not consider utility or lack thereof in the on-sale bar analysis. This Court must clarify that its holding in *Pfaff* was not meant to be interpreted in a manner inconsistent with the utility provision of the Patent Act. If an invention must still, under *Pfaff*, be useful before it can be deemed "on sale," then skepticism of an inventor as to the workability of his invention must be recognized as relevant to a "ready for patenting" determination.

Second, the Federal Circuit's decision ignores the requirements for the "ready for patenting" test that was promulgated in *Pfaff* and the express directive of this Court to consider additional development work after the offer for sale in determining whether an invention is "on sale." This further demonstrates the Federal Circuit's fundamental misunderstanding of the test set forth in *Pfaff*.

Although the court of appeals paid lip service to the idea of "enablement" with respect to its "ready for patenting" findings, it in effect eliminated this prong of the *Pfaff* test, and essentially held that the invention was on sale when it was nothing more than a concept of improving a prior art machine. Other courts have also assumed or expressly held that conception alone is sufficient to meet the *Pfaff* test.[14] In light of these decisions, it is imperative that this Court issue the writ of certiorari to clarify that an invention must either be reduced to practice or enabled under

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14. *See* note 5, *supra*, and cases cited therein.

35 U.S.C. § 112 to be "ready for patenting," and that conception alone is not sufficient to satisfy this test.[15]

Although this Court never referenced 35 U.S.C. § 112 in its *Pfaff* decision, the Court specifically set forth a test that parallels the minimum disclosure required for obtaining a patent under this section. The language of the *Pfaff* test, as well as the reasoning set forth therein, mandates that the second part of the "ready for patenting" test (*i.e.*, "drawings or other descriptions"), at a minimum, satisfy the requirements of section 112. The enablement standard simply cannot be met by an initial oral instruction from an inventor to a fellow employee, who eventually was able to reduce the invention to practice.

Had a patent application been filed at the time that Mr. Yonescu gave his instructions to Mr. Briceno, the patent disclosure would have been devoid of the subsequent developmental work that was eventually disclosed in the patent application actually filed, which makes the patent specification sufficiently specific to enable one of ordinary skill in the art to practice the invention. If based solely on the information available at the time of the instruction, any disclosure of the concept as it then existed would have required an undue amount of experimentation, and would not have been enabling so as to meet the "drawings or other descriptions" prong of the "ready for patenting" test.

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15. The lower courts' wide application of the *Pfaff* test to hold more and more patents invalid has not gone unnoticed: "the search for court decisions that have used *Pfaff* to render a final judgment in favor of the patent owner has been fruitless. . . . *Pfaff* is the strictest on-sale standard ever imposed by a court and will probably continue to bring about the demise of more patents." Juan C. Gonzalez, *The On-Sale Bar to Patentability: The U.S. Supreme Court Sheds Some Light*, 40 J.L. & Tech. 83 (2000); Timothy R. Holbrook, *The More Things Change, The More They Stay The Same: Implications of Pfaff v. Wells Elecs., Inc. and the Quest for Predictability in the On-Sale Bar*, 15 Berkeley Tech. L.J. 933, 939 (2000) (reviewing the lower courts' application of the Supreme Court test, and concluding that the new test, as applied, has not added certainty to this area of law).

I. The Decision Below Interprets *Pfaff* In a Manner that Places this Court's "Ready for Patenting" Test In Direct Conflict with the Utility Provision of the Patent Act and this Court's Prior Decisions Regarding the Utility Requirement

In *Pfaff*, this Court addressed the issue of whether the commercial marketing of a newly invented product may mark the beginning of the statutory one-year grace period for the on-sale bar, even though the invention has not yet been reduced to practice. *Pfaff*, 525 U.S. at 57. In its analysis, this Court stated that an invention refers to a complete concept, not one that is merely substantially complete. *Id.* at 66. The Court held that an actual reduction to practice is not a prerequisite for triggering the on-sale bar, and that an invention can be on sale as long as (1) there is a commercial offer for sale and (2) the invention is "ready for patenting." *Id.* at 67. The Court further held that its "ready for patenting" test can be satisfied in at least two ways: by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention. *Id.* at 66-67. The Court's primary concern in *Pfaff* was to determine at what point in the development process the patentee could have filed a patent application, in order to pinpoint a time from which the clock would start running for the on-sale bar. *Id.* at 62-63 ("[I]t is evident that Pfaff *could have obtained a patent* on his novel socket when he accepted the purchase order from Texas Instruments for 30,100 units.") (emphasis added).

A. Certiorari Is Warranted Because The Federal Circuit's Interpretation Of *Pfaff* Conflicts With The Constitutional And Statutory Requirement That An Invention Be "Useful" Before A Patent Can Properly Be Granted For It

In its decision, the *Pfaff* Court never expressly addressed the utility requirement under 35 U.S.C. § 101, since in that case the inventor was admittedly confident that his invention would work for its intended purpose, 525 U.S. at 58 n.3. There was no need to mention utility *per se*, given the particular facts of that case. Consistent with the Court's decision, however, the utility requirement of the Patent Act must be met in order to satisfy the "ready for patenting" prong of the on-sale bar test. This Court's statement in *Pfaff* — that an invention can be complete, and that a patent application can be filed, without the invention ever being actually reduced to practice — did not in any way suggest that other provisions of the Patent Act can or should be ignored in making the "ready for patenting" determination. On the contrary, the Court specifically referenced § 101 in its analysis of the basic conditions for obtaining a patent. *Id.* at 61.

Section 101 of the Patent Act provides that "[w]hoever invents or discovers any new and *useful* process, machine, manufacture, or composition of matter, or any new and *useful* improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101 (emphasis added). If an inventor does not know whether his invention will work for its intended purpose, the inventor will not know whether his concept will have the requisite utility under 35 U.S.C. § 101. *Estee Lauder Inc. v. L'Oreal, S.A.*, 129 F.3d 588, 593 (Fed. Cir. 1997) ("The 'utility requirement is satisfied when an inventor has learned enough about the product to justify the conclusion that it is useful for a specific purpose.' ") (citations omitted). Thus, inventor confidence regarding the operability of an invention, although predominantly intertwined

with the reduction to practice test,[16] must also be considered in determining whether the utility requirement is met,[17] and by extension, whether an invention is ready for patenting. This Court's holding that an actual reduction to practice is not required for an invention to be ready for patenting does not, and surely was not intended to, dispense altogether with the requirement that an inventor satisfy his or her belief that the invention will be operable or that it will work for its intended purpose before a patent can properly be granted for it. To hold otherwise would completely eviscerate the constitutional and statutory requirement of utility, one of the most fundamental aspects of patentability.

At the time of Mr. Yonescu's instructions to Mr. Briceno, and indeed until after the critical date, the inventors could not

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16. *See, e.g., Eastern Rotorcraft Corp. v. United States*, 384 F.2d 429, 431 (Ct. Cl. 1967) ("Reduction to practice occurs when the workability of the invention can be demonstrated."); *Radio Corp. of America v. Int'l Standard Elec. Corp.*, 232 F.2d 726, 730 (3d Cir. 1956) (reduction to practice requires demonstration that the invention will work to accomplish its intended purpose); *Piher, S.A. v. CTS Corp.*, 664 F.2d 122, 127 (7th Cir. 1981) (reduction to practice requires demonstration of practical efficacy and utility); *Fujikawa v. Wattanasin*, 93 F.3d 1559, 1563 (Fed. Cir. 1996) (reduction to practice cannot be established absent a showing of utility).

17. *See, e.g., Fujikawa*, 93 F.3d at 1563 ("[A] patent may not be granted to invention unless substantial or practical utility for the invention has been discovered and disclosed."); *Gross v. General Motors Corp.*, 521 F.2d 45, 49 (1st Cir. 1975) ("While testing may not be required where the teaching is simple and compelling to those skilled in the art, the patent's workability must be established. The amount of testing necessary depends upon the particular invention and whether the tests conducted show the invention will work as intended in its contemplated use.") (citations omitted); *In re Ruskin*, 354 F.2d 395, 396 (C.C.P.A. 1966) ("A process is operative if it produces its intended result."); *In re Wooddy*, 331 F.2d 636, 639 (C.C.P.A. 1964) (if process is inoperative it is not useful under this Section; actual performance is not needed, but more than mere speculation as to the operation is needed).

have filed the patent application because they did not know if their invention would meet any of its desired objectives.[18] In light of this undisputed fact based on objective evidence alone,[19] the invention could not have been "ready for patenting." The court of appeals' express holding that skepticism as to the workability of an invention has no role in determining whether an invention is ready for patenting simply cannot be reconciled with the conditions for patentability set forth in 35 U.S.C. § 101.

B. Certiorari Is Warranted Because The Federal Circuit's Interpretation of *Pfaff* Conflicts With Prior Decisions of This Court

The Federal Circuit's holding that inventor skepticism is irrelevant to the ready for patenting determination also conflicts with the prior decisions of this Court regarding the conditions for patentability. In those prior decisions, this Court has recognized that one of the fundamental requirements of American patent law, dating back some two-hundred years, is that "one may patent only that which is 'useful.' " *Brenner v. Manson*, 383 U.S. 519, 528-29 (1966). Moreover, the Court

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18. At least one court has used evidence of such skepticism as invalidating a patent for lack of utility. *See, e.g., Gross*, 521 F.2d at 49 (citing the inventor's admission that he did not think that his invention would work as intended in its contemplated use at the time of filing as evidence to uphold a finding of lack of utility).

19. While commentators have recognized that this factor either is or should be a part of the "ready for patenting" test, they have differed as to whether the test should be subjective or objective. *Compare* Vincent J. Allen, *The On Sale Bar: When Will Inventors Receive Some Guidance?*, 51 Baylor L. Rev. 125, 146 (1999) (advocating the subjective test) *with* Timothy R. Holbrook, *The More Things Change, The More They Stay The Same: Implications of Pfaff v. Wells Elecs., Inc. and the Quest for Predictability in the On-Sale Bar*, 15 Berkeley Tech. L.J. 933, 976 (2000) (whether a disclosure is enabling under the *Pfaff* test is an objective determination). The facts of this case satisfy either test.

has held that to meet the utility requirement, a new product or process must be shown to be operable — that is, it must be "capable of being used to effect the object proposed." *Mitchell v. Tilghman*, 86 U.S. (19 Wall.) 287, 396 (1873); *see also* note 17, *supra*, and cases cited therein. It would be bizarre indeed to hold that an invention that does not meet this criterion is "ready for patenting." Accordingly, contrary to the court of appeals' ruling, an inventor's skepticism regarding the workability of his invention must be considered in determining whether an invention is ready for patenting, at least insofar as it relates to utility.

This Court and the Federal Circuit, in their previous opinions, have both considered this factor in their "on sale" determinations even after holding that a reduction to practice is not required to trigger the on-sale bar. The Federal Circuit, much like the *Pfaff* Court, recognized in *UMC Electronics Co. v. United States*, 816 F.2d 647, 653 n.7 (Fed. Cir. 1987), that "reduction to practice" is a term of art that arose in the interference context, and that it only appears in the text of 35 U.S.C. § 102(g). The *UMC* court held that reduction to practice, while sufficient, is not necessary to demonstrate that an invention is "on sale" under 35 U.S.C. § 102(b). *Id.* at 656. Consistent with that holding, the court in its analysis considered that the invention "had been sufficiently tested to demonstrate to the satisfaction of the inventor that the invention as ultimately claimed would work for its intended purpose." *Id.* at 657. Likewise, consistent with its prior decisions regarding utility, the *Pfaff* Court considered in its analysis the fact that the inventor was confident that his invention would work, despite holding that an actual reduction to practice is not required.[20] *Pfaff*, 525

20. The *Pfaff* Court rejected the Federal Circuit's multi-factor, "totality of circumstances" approach, 525 U.S. 66 n.11, but appears to have adopted the reasoning of the majority in the *UMC* case. In *Seal-Flex, Inc. v. Athletic Track & Court Construction*, 98 F.3d 1318, 1324 (Fed. Cir. 1996), which the *Pfaff* Court credited with recognizing that (Cont'd)

U.S. at 58 n.3. Accordingly, inventor skepticism cannot be ignored based simply on this Court's holding in *Pfaff* that a reduction to practice is not required for an invention to be on sale. On the contrary, it is a factor that has been and must be considered in the on-sale "ready for patenting" analysis.[21]

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the totality of circumstances test is uncertain, the Federal Circuit held that the on-sale bar starts to accrue when a completed invention is offered for sale. Rejecting the district court's "extensively developed" (or "substantially complete") standard, the *Seal-Flex* court stated that the on-sale determination, as explained in *UMC*, turns on "whether it was known that the invention would work for its intended purpose without further testing or evaluation." *Id.* Consistent with the reasoning in *UMC* and *Seal-Flex*, most of which appear to have been adopted by the Supreme Court in *Pfaff*, skepticism of the inventors as to the workability of an invention is highly relevant to the on-sale determination. The Federal Circuit has interpreted *Pfaff* to mean that it can no longer balance the policies underlying 35 U.S.C. § 102(b) in its on-sale analysis. *Weatherchem Corp v. J.L. Clark, Inc.*, 163 F.3d 1326, 1333 (Fed. Cir. 1998) ("[T]his court follows the Supreme Court's two-part test without balancing various policies according to the totality of circumstances as may have been done in the past."). However, while the lower courts no longer need to balance the circumstances against the *policies* underlying section 102(b), as they had under the totality of circumstances approach, they must still consider all the *facts*, including evidence that the invention was not known to work for its intended purpose, in their "ready for patenting" analysis.

21. The *Pfaff* Court acknowledged that inventor skepticism is relevant to the on-sale inquiry, and quoted *Elizabeth v. Pavement Co.*, 97 U.S. 126, 137 (1877), for the following proposition:

> It is sometimes said that an inventor acquires an undue advantage over the public by delaying to take out a patent, inasmuch as he thereby preserves the monopoly to himself for a longer period than is allowed by the policy of the law; but this cannot be said with justice when the delay is occasioned by a *bona fide* effort to bring his invention to perfection, or to *ascertain whether it will answer the purpose intended.* His monopoly only continues for the

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The Federal Circuit's utter disregard of such evidence simply cannot be reconciled with the prior decisions of this Court requiring utility as a condition for patentability.

In a curious departure from its prior decisions, both pre- and post-*Pfaff*, the Federal Circuit in this case for the very first time completely ignored an inventor's skepticism regarding the workability of his invention in determining whether an invention is complete and "on sale."[22] Pet. App. 9a. The court of appeals assumed that this Court's statement in *Pfaff* — that an actual physical embodiment of an invention is not necessary to obtain a patent — likewise dispenses with the requirement that an invention be useful or operative.[23] The utility requirement was

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> allotted period, in any event; and it is in the interest of the public, as well as himself, that the invention should be perfect and properly tested, before a patent is granted for it.

525 U.S. at 65 (emphasis added).

22. In other post-*Pfaff* cases, the Federal Circuit appreciated that skepticism regarding workability of the invention is indeed a factor in determining whether an invention is ready for patenting. *See, e.g., Weatherchem Corp. v. J.L. Clark, Inc.*, 163 F.3d 1326, 1334 (Fed. Cir. 1998) (the fact that customer had ordered a commercial quantity of the invention prior to the critical date showed "confidence that the invention was complete and operative"); *STX, LLC v. Brine, Inc.*, 211 F.3d 588, 591 (Fed. Cir 2000) (concluding that STX had confidence that the invention was complete and operative). However, the Federal Circuit in this case departed from those decisions and characterized its reference to the inventor's confidence in those prior opinions as merely providing additional factual support for its ready for patenting conclusions, instead of a holding that lack of skepticism was an evidentiary requirement.

23. The Federal Circuit stated that it will only consider such evidence for the "reduction to practice" prong of the "ready for patenting" test. Pet. App. 9a ("Notably absent from [the *Pfaff* on-sale test] is a requirement that an inventor have complete confidence that his invention will work for its intended purpose. Such confidence must await a reduction to practice, which is a separate basis on which an invention may be shown to be ready for patenting.").

not discarded by this Court's decision in *Pfaff*, however, and this Court should issue a writ of certiorari to correct the Federal Circuit on this matter and thus prevent further confusion among the lower courts.

In situations like the present case, where inventor confidence is clearly lacking, holding that an invention is ready for patenting before the inventors have a chance to determine if their invention is operable presents inventors with a dilemma: either file a premature patent application without knowing if the invention has any utility, which may later be found non-enabling because the invention is not yet fully developed,[24] or risk invalidity under the on-sale provision of the patent statute. This certainly would not promote this Court's objective of providing a clear test for inventors by which they can measure the statutory grace period.

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24. It has long been recognized that the scientific community gains much more from a patent based on a carefully prepared disclosure of a complete invention as opposed to a prematurely written disclosure of a concept that is still in its infancy and written solely to guard against forfeiture. Likewise, early filing of an application and subsequent flooding of the patent office with other applications as the invention is further developed and refined does not serve the policies underlying § 102(b). In fact, the premature filing of patent applications has often been criticized by this Court and others. *See, e.g., Kewanee Oil Corp. v. Bicron Corp.*, 416 U.S. 470, 485 (1974) (there is no public interest in encouraging filing of applications "doomed to be turned down" by an overburdened Patent Office); *UMC Elecs. Co. v. United States*, 816 F.2d at 664-65 (Smith, J., dissenting), *cert. denied*, 484 U.S. 1025 (1988) ("Paper patents merely add to the clutter of unproved patents in the PTO and in the courts, requiring fees, examinations, lawyers, trials and appeals, all of which disserve both the inventing and the using communities.").

II. By Ignoring Evidence Probative of Whether an Invention Is Still In A Developmental Phase, the Decision Below Applies *Pfaff* In a Manner that Eliminates the Second Prong of the On-Sale Test

Also implicit in this Court's *Pfaff* decision is the idea that an invention cannot be "ready for patenting" unless it meets the enablement standard set forth in 35 U.S.C. § 112. By ignoring evidence of inventor skepticism, the court of appeals has ignored this enablement standard as well,[25] and in effect found that conception alone suffices to meet the Court's "ready for patenting" test.

Under the on-sale test promulgated by this Court, the *Pfaff* "ready for patenting" test can be satisfied in at least two ways. Absent a reduction to practice, this Court has required "drawings or other descriptions" sufficiently specific to enable a person skilled in the art to practice the invention" before applying the on-sale bar. *Pfaff*, 525 U.S. at 67-68. This test parallels the statutory language governing the minimum disclosure required in a patent application. 35 U.S.C. § 112 (requiring that a patent application "contain a written description of the invention, and the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art . . . to make and use the same. . . .") Although the Court never references 35 U.S.C. § 112 in *Pfaff*, the test set forth therein indicates that the Court intended the test to be identical to that of section 112.[26] Both the test promulgated in

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25. Courts have held that the lack of enablement and lack of utility are closely related grounds of unpatentability. *Process Control Corp. v. Hydreclaim Corp.*, 190 F.3d 1350, 1358 (Fed. Cir. 1999) ("If a patent claim fails to meet the utility requirement because it is not useful or operative, it also fails to meet the how-to-use aspect of the enablement requirement.").

26. The Federal Circuit has assumed as much in a post-*Pfaff* decision. *Helifix Limited v. Blok-lok, Ltd.*, 208 F.3d 1339, 1350 (Fed. Cir. 2000) (considering whether the brochure in question was enabling in its on-sale analysis).

Pfaff and the analysis set forth therein suggest that the *Pfaff* test was meant to encourage the filing of applications that have been sufficiently developed to comply with section 112.

At the time of the initial instruction at issue in this case, because the inventors themselves had not fully developed and considered the idea yet, they simply could not have given Mr. Briceno an enabling disclosure which contained the necessary mathematical formulations and details that were subsequently discovered and disclosed in the patent specification. Specifically, at that time, the inventors did not know how to calculate the amount of overscan necessary to capture sufficient data for an entire column or row, how to piece together the data necessary for each chip, or whether scanner movement across an entire tray of parts would have any unwanted effect on measurements.[27] The inventors, themselves unaware of these details, could not have communicated them to Mr. Briceno when the project began. In contrast, the disclosure in the specification that was ultimately filed included all the necessary details for one of ordinary skill in the art to practice the method without undue experimentation.[28] To hold that the invention was ready for patenting as of the date of the initial instruction, without the disclosure of the details ultimately included in the patent specification, would be tantamount to holding that disclosure of the conception suffices to satisfy the ready for patenting test.

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27. These issues were eventually resolved and subsequently explained in the patent application that was filed. For example, the specification describes the areas from which data must be obtained and the areas over which scanning velocity may be increased without concern for induced vibration, col. 4, ll. 53-61, and identifies the desired widths of the scans and the fraction of the overscan required to ensure that enough 3-D data exists to allow proper identification of the exact ends of the lead tips, col. 4, l. 62 - col. 5, l. 24.

28. An enabling disclosure is one that is sufficient to "teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation.' " *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1365 (Fed. Cir. 1997) (citations omitted).

A review of the facts in *Pfaff*, as well as the facts in the cases that the *Pfaff* court relied upon, demonstrates the enormity of the Federal Circuit's departure from the *Pfaff* test. In *The Telephone Cases*, which was extensively cited by this Court in *Pfaff*, the Court considered whether Alexander Bell was entitled to his patent despite never having constructed a working model of his invention prior to filing his application. The Court noted that:

> he did describe accurately and with admirable clearness his process, that is to say, the exact electrical condition that must be created to accomplish his purpose, and he also described, with sufficient precision to enable one of ordinary skill in such matters to make it, a form of apparatus which, if used in the way pointed out, would produce the required effect, receive the words, and carry them and deliver them at the appointed place.

126 U.S. 1, 535 (1888). In that case, the Court had before it a detailed written description of the invention and not merely the conception of the invention. Clearly, Bell did not conceive of the idea and promptly file a patent application; instead, he had to experiment to the point that he could prepare an enabling disclosure, one that would "point[] out some practicable way of putting [the invention] into operation." *Pfaff*, 525 U.S. at 62 (citations omitted). Likewise, in *Pfaff*, the Supreme Court had before it detailed engineering drawings from which a manufacturer could produce the claimed sockets, not just a mere concept. *Id.* at 63. The Court's reliance on the facts of these cases[29] demonstrates that there must be more than a mere concept for the "ready for patenting" test to be satisfied.

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29. *Pfaff*, 525 U.S. at 66 ("Indeed, both the facts of *The Telephone Cases* and the facts of this case demonstrate that one can prove that an invention is complete and ready for patenting before it has actually been reduced to practice.").

In this case, at the time that Mr. Briceno was given the instruction to begin writing the software, the "invention" was no more than an unconfirmed concept that had not yet been developed, with no drawings or written descriptions from which one could objectively judge enablement. Contrary to the court of appeals' holding, this mere idea on how to improve a prior art machine, without more development, does not constitute an enabling disclosure that triggers the on-sale bar. It is undisputed that nothing was done to develop the column and row concept between the time that the inventors first conceived of the method and the time that Mr. Yonescu instructed Mr. Briceno to begin writing the software.[30] Holding that this initial oral instruction

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30. There is no logical link between the court of appeals' reference to Mr. Yonescu's initial instruction and the court's conclusion that that disclosure must have been enabling because Mr. Briceno ultimately completed the software. The only trial testimony on this topic is reproduced below:

> Q: His oral description was sufficient for you to write the code to practice the invention?
>
> A: His oral description was enough for me to understand what he was trying to achieve with the invention.
>
> Q: And that was sufficient for you to write the code to implement it; correct?
>
> A: For me to — well, to try to write the code.
>
> Q: You did write the code?
>
> A: I did write the code.
>
> Q: Based on his oral description?
>
> A: Yes.

A2317. Importantly, Mr. Briceno never testified that the initial instruction was sufficient, in and of itself, to enable him to write the entirety of the code necessary to carry out the claimed method. There is no testimony whatsoever regarding the details of that initial disclosure from which to judge enablement. While Mr. Briceno did ultimately

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satisfies the "ready for patenting" test in effect reduces the "ready for patenting" test set forth in *Pfaff* to a test that requires proof of an offer for sale of an invention that had been merely conceived prior to the critical date. Had this been the Court's intended test, it surely would not have required either "reduction

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finish the software necessary to carry out the patented method, he only did so after much discussion and collaboration with the inventors and others at RVSI regarding different aspects of the invention. Moreover, the finding that Mr. Briceno was eventually able to write the necessary software after the critical date is not dispositive of whether there was an enabling disclosure *prior to the critical date*, which is the test that must be satisfied under *Pfaff*. In addition, it took Mr. Briceno, an individual of extraordinary skill in the art, over four months to implement the column and row concept on the RVSI hardware. Even if Mr. Briceno were one of mere ordinary skill in the art (which Petitioner submits he is not), the initial disclosure from Mr. Yonescu would not have been enabling, because it would not allow one of ordinary skill in the art to practice the invention without undue experimentation. While the patent specification is sufficiently specific to meet this enablement standard, the initial instruction from Mr. Yonescu certainly was not. The four plus months of "trial and error" that Mr. Briceno and Mr. Bilodeau experienced in order to eventually implement the column and row method demonstrates that the initial disclosure was not enabling, and that the invention could not have been "ready for patenting" based on that disclosure. A2322-2323.

Furthermore, while completion of software might be sufficient to meet the now-rejected "substantially complete" test for an invention that requires the integration of hardware and software, it is inadequate for a test that requires that such an invention be "complete." In order for such an invention to be enabled, not only must the disclosure regarding the functions of the software be complete such that one of ordinary skill in the art would be able to write the necessary code to carry out the method, but the disclosure must also be complete regarding the integration of that software with hardware (*e.g.*, the sensor) to achieve and perform the claimed method. No such disclosure took place during the conversation between Yonescu and Briceno. No such disclosure could have taken place at that time, because there was no software yet which could be integrated with hardware.

to practice" or "drawings or other descriptions of the invention sufficiently specific to enable a person skilled in the art to practice the invention." Indeed, there would have been no need for the Court's "ready for patenting" prong of the on-sale test at all.

Further, by considering and rejecting a test that would not take into account additional development work, this Court has already acknowledged that at the time of conception the inventor may not know whether his invention will work, and that he may not yet be able to obtain a patent. Conception, unlike enablement, does not require knowledge of the invention's utility. The Federal Circuit itself has recognized that enablement and conception are distinct issues, and that one need not necessarily meet the enablement standard to prove conception. *Burroughs Wellcome Co. v. Barr Labs., Inc.*, 40 F.3d 1223, 1231 (Fed. Cir. 1994). Thus, when the test, initially put forth by Judge Bryson in his *Seal-Flex* concurrence, and later proposed by the Solicitor General in *Pfaff*, was rejected by this Court, it signaled a clear intent that more than a mere concept is required for an invention to be "ready for patenting." Specifically, the test that this Court rejected stated that "if the sale or offer in question embodies the invention for which a patent is later sought, a sale or offer to sell that is primarily for commercial purposes and that occurs more than one year before the application renders the invention unpatentable." *Pfaff*, 525 U.S. at 68 n.14. The Court's rejection of this test, based on the fact that it would not take into account additional development work, demonstrates the Court's understanding that further development work does occur after conception and that such development must be considered in the on-sale analysis.[31]

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31. In addition, the bright line test that the Court sought to put in place for the on-sale bar would lead to different results depending upon the field of invention if a mere concept is held to satisfy the "ready for patenting" test. For example, the "mechanical" type inventions discussed in *Pfaff* and *Weatherchem* naturally yield detailed drawings or

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Here, when Mr. Yonescu first instructed Mr. Briceno to begin work on the project, the inventors could not yet point out a practicable way of putting the invention into operation. Had the inventors had any way of doing so, they certainly would have done it by the target date for Intel, one of their most valued customers. The fact that they could not do so for months after that initial instruction is evidence of the kind of "undue experimentation" that usually renders a disclosure non-enabling. Surely this kind of disclosure was not what this Court had in mind when it set forth its "ready for patenting" test to determine when a patentee forfeits his patent rights under the on-sale bar.

If this instruction by Mr. Yonescu is held to meet this Court's "drawings or other descriptions" prong of the "ready for patenting" test, it would fail to fulfill the policy interest of providing inventors with a clear and definite standard for determining when the grace period begins. For instance, it would not give inventors seeking the benefit of the grace period (*e.g.*, postponement of fees associated with a patent application while an invention's viability is being ascertained) fair warning as to how long they can safely wait before involving patent counsel. The ready for patenting test set forth in *Pfaff*, although it appears to be reasonably clear and precise, would utterly fail to provide the intended bright line test for determining when an invention is complete if it is applied in the absence of an inventor's belief as to the workability of his invention.[32] Without

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prototypes, providing an objective basis from which to determine enablement. This is different from a software-based invention, which by its very nature has to operate on hardware, and thus, for enablement requires more than an oral description of a general concept.

32. Most inventors cannot determine without legal assistance at what point during the development of the invention their notes or drawings become sufficient "to enable a person skilled in the art to practice the invention" ultimately claimed in a patent. Until the actual patent claims, which define the "invention," have been drafted, even a

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the advice of patent counsel or a judge at all stages of the inventive process, the only point at which an inventor can be reasonably certain that an invention is complete and subject to forfeiture under the on-sale bar is when that inventor knows or has reason to believe that the invention will work for its intended purpose.

Moreover, as a practical matter, the Federal Circuit's broad interpretation of *Pfaff*, if adopted, would unduly punish corporations, where work on inventions is often done by development teams. A development team in a corporation cannot maintain silence with respect to its pending projects, but instead requires continued collaboration and communication among team members to achieve completion of an invention. If *Pfaff* is broadly and indiscriminately applied to find inventions "ready for patenting" because of oral intra-company communications in such situations, despite the fact that work on the project was just beginning, it would be detrimental to the expressly stated purpose of the constitutional patent clause "to promote the progress of science and the useful arts." This Court should issue the writ of certiorari because the Federal Circuit's decision, if left unchecked, will cause confusion among the lower courts and have a chilling effect on cooperative, intra-company liaisons and scientific development.

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patent attorney cannot determine whether a "written description" meets this enabling disclosure requirement. *See Mowry v. Whitney*, 81 U.S. (14 Wall.) 620, 646 (1872) (holding that the patent "specification sufficiently describes the process invented and claimed").

CONCLUSION

For the foregoing reasons, the petition for a writ of certiorari should be granted.

Respectfully submitted,

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APPENDIX

APPENDIX A — OPINION OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT DATED AND DECIDED MAY 7, 2001

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

00-1343, -1377

ROBOTIC VISION SYSTEMS, INC.,

Plaintiff-Appellant,

v.

VIEW ENGINEERING, INC., and GENERAL SCANNING, INC.,

Defendants-Cross Appellants.

DECIDED: May 7, 2001

Before LOURIE, RADER, and BRYSON, *Circuit Judges*.

LOURIE, *Circuit Judge*.

Robotic Vision Systems, Inc. appeals from the decision of the United States District Court for the Central District of California holding claim 1 of United States Patent 5,463,227 invalid under the on-sale provision of 35 U.S.C. § 102(b). *Robotic Vision Sys., Inc. v. View Eng'g, Inc.*, No. CV-95-7441, slip op. at 14 (C.D. Cal. Mar. 29, 2000) ("*Robotic III*"). View Engineering, Inc. and General Scanning, Inc. (collectively "View") cross-appeal, arguing that Robotic's failure to disclose

the best mode of carrying out the invention provides an alternative ground for affirming the district court's judgment of invalidity. Because the district court did not err in holding the claim invalid on the ground of the on-sale bar, we affirm.

BACKGROUND

This is an appeal from the district court's decision on remand, following our previous decision in *Robotic Vision Systems, Inc. v. View Engineering, Inc.*, 112 F.3d 1163, 42 USPQ2d 1619 (Fed. Cir. 1997) ("*Robotic II*"). Familiarity with the facts as set forth in that opinion is presumed. However, for the purpose of deciding the issues raised in this appeal, we will briefly summarize the relevant facts.

Robotic is the assignee of the '227 patent, which discloses a method of scanning the leads on integrated circuit devices that are arranged in rows and columns on a multi-pocketed tray. Unlike prior art systems, which scanned all four sides of one device before moving on to the next device, the claimed method involves scanning across the entire tray, over the corresponding sides of the devices, either by row or by column. '227 patent, col. 1, l. 66 to col. 2, l. 4. According to the specification, this "full-tray scanning" or "column and row" method reduces the overall scanning time by minimizing the number of direction and speed changes that are required. *Id.* at col. 2, ll. 4-6. Independent claim 1, the only claim at issue, reads as follows:

> 1. A method for obtaining three-dimensional data from devices having corresponding sides, comprising the steps of: providing a multi-pocketed tray with tray pockets arranged in rows and columns; scanning

> sequentially with at least one three-dimensional sensor corresponding sides of said devices in a row or column; and repeating said scanning step for all rows and columns containing sides of said devices from which data is to be obtained.

Id. at col. 6, ll. 51-58.

The application for the '227 patent was filed on June 24, 1992, thus establishing a critical date of June 24, 1991 for the purposes of the on-sale provision of 35 U.S.C. § 102(b). On October 31, 1995, the date the patent issued, Robotic filed suit against View, alleging that some of View's three- dimensional scanning machines infringed the patent. View filed a motion for summary judgment of invalidity. The district court granted View's motion, concluding that the claimed invention was on sale prior to the critical date, and that the patentee failed to disclose the best mode of carrying out its invention. *Robotic Vision Sys., Inc. v. View Eng'g, Inc.*, 39 USPQ2d 1167, 1174 (C.D. Cal. Mar. 1, 1996) (order) ("*Robotic I*"). On appeal, this court reversed the district court's summary judgment of invalidity for failure to disclose the best mode, vacated its summary judgment of invalidity under the on-sale bar, and remanded the case for further fact-finding on the sole issue whether the requisite software for Robotic's full- tray scanning method was completed before the critical date. *Robotic II* at 1169. We explained that, because such software was necessary to carry out the claimed method, there was a genuine issue of material fact as to whether the claimed method was "substantially complete" before the critical date. *Id.* at 1167.

While this case was on remand, the Supreme Court held that the on-sale bar of 35 U.S.C. § 102(b) applies when the

patented invention is both the subject of a commercial offer for sale and "ready for patenting" prior to the critical date. *Pfaff v. Wells Elecs., Inc.*, 525 U.S. 55, 66-67, 48 USPQ2d 1641, 1646-47 (1998) (supplanting the "substantially complete" standard applied by this court). In its earlier decision, the district court found that Robotic's patented method was the subject of a commercial offer for sale prior to the critical date;[1] this factual determination was undisturbed on appeal. Accordingly, the district court proceeded to determine whether Robotic's column and row software was "ready for patenting" prior to June 24, 1991. Following a bench trial, the district court concluded that the required software was ready for patenting before the critical date. *Robotic III* at 12-13.

The court concluded that the claimed invention was ready for patenting prior to February 8, 1991, when Robotic personnel described the full-tray scanning method and presented explanatory drawings or "sketches" to Daryl Lafferty, a representative of Intel Corporation, the purchaser of Robotic's patented technology. *Id.* at 5, 12. Alternatively, the court found that the invention was ready for patenting sometime between March and April of 1991, when William Yonescu, a co-inventor, explained the invention to Daniel Briceno, a Robotic employee, in a manner sufficiently specific to enable a person skilled in the art to understand, and write the software code for, the full- tray scanning method. *Id.* at 6, 12. Applying the *Pfaff* test, the court rejected Robotic's argument that the claimed method could not be ready for patenting because one of the inventors expressed skepticism

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1. The district court specifically found that Robotic sold one of its LS-2000 scanning devices to Intel Corporation in March 1991, and agreed to provide its full-tray scanning system by June 3, 1991. *Robotic I* at 1171.

as to whether the invention would work for its intended purpose. *Id.* at 12-13 n.4. Finally, the court determined that the invention was reduced to practice by May 22, 1991, at which time Robotic's software contained sufficient code to enable its machines to perform the claimed "column and row" method. *Id.* at 6, 13.

Robotic timely appealed to this court. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1) (1994).

DISCUSSION

In an appeal from a bench trial, we review a district court's decision for errors of law and clearly erroneous findings of fact. *Kolmes v. World Fibers Corp.*, 107 F.3d 1534, 1538, 41 USPQ2d 1829, 1832 (Fed. Cir. 1997). Whether an invention was on sale within the meaning of § 102(b) is a question of law that this court reviews *de novo*; however, factual findings underlying a district court's conclusions are subject to the clearly erroneous standard of review. *Id.*

A person is entitled to a patent unless, *inter alia*, "the invention was . . . *on sale* in this country, more than one year prior to the date of the application for patent in the United States." 35 U.S.C. § 102(b) (1994) (emphasis added). Robotic argues that claim 1 is not invalid under the on-sale bar because the software needed to implement the claimed method, which involves the collection of three-dimensional data, was not ready for patenting prior to the critical date of June 24, 1991. Robotic contends that there was no enabling disclosure of the claimed invention prior to the critical date. Robotic also contends that the invention was not reduced to practice before the critical date.

View responds that the software for the full-tray scanning method was completed before the June 24, 1991 critical date. View asserts that Robotic disclosed its invention prior to the critical date in a manner that was sufficiently specific to enable a person skilled in the art to practice the invention. View further contends that the software was actually reduced to practice by May 22, 1991, one month before the critical date.

We agree with View that claim 1 is invalid for violation of the on-sale bar. Under the two-part test set forth by the Supreme Court, the on-sale bar of § 102(b) applies when an invention is: (1) the subject of a commercial offer for sale before the critical date; and (2) ready for patenting before the critical date. *Pfaff*, 525 U.S. at 67, 48 USPQ2d at 1646-47. An invention may be shown to be ready for patenting in at least two ways: "by proof of reduction to practice before the critical date; or by proof that prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention." *Id.* at 67-68, 48 USPQ2d at 1647.

In its March 1, 1996 order, the district court determined that Robotic had sold its patented full-tray scanning technology to Intel Corporation in March 1991, more than one year prior to the filing date of the '227 patent. *Robotic I* at 1171-72. Because that finding was undisturbed by this court in the first appeal, *Robotic II* at 1164, 1168, the district court, on remand, properly concluded that Robotic's invention was the subject of a commercial offer for sale before the critical date. *Robotic III* at 11. Accordingly, the sole issue in this appeal is whether the district court's finding that the claimed invention was ready for patenting prior to the critical date was clearly erroneous.

Appendix A

We agree with View that the claimed invention, including the necessary software for implementing the full-tray scanning method, was ready for patenting prior to the critical date. Sometime between March and April of 1991, William Yonescu, a co-inventor of the full-tray scanning method, explained the invention to Daniel Briceno of Robotic and asked him to write the software for full-tray scanning. *Robotic III* at 6. This explanation was sufficiently specific for Briceno to understand the invention and to write the software needed to implement the method. *Id.* Regardless whether or not the software was reduced to practice prior to the critical date, it is undisputed that Briceno ultimately completed the software program pursuant to Yonescu's description of the invention. In *Pfaff*, the Supreme Court, based on the facts of that case, referred to "drawings or other descriptions" as proof that an invention is complete, and hence ready for patenting. In this case, the proof was disclosure to Briceno. Accordingly, because Yonescu's disclosure was sufficiently specific to enable Briceno, a person skilled in the art, to practice the invention, the district court did not err in concluding that the invention was ready for patenting before the critical date.

Robotic argues that its invention was not ready for patenting before the critical date because the district court failed to focus on "the essence of the claimed method, *i.e.*, scanning for the purpose of collecting three-dimensional data," and that at the time of Yonescu's disclosure, "the ability to collect data did not exist because software to implement the claimed method did not exist." That argument is not persuasive. As explained above, whether or not the software needed to implement the claimed method existed at the time of the disclosure is irrelevant, provided that the disclosure of the invention was made prior to the critical date and was sufficiently specific to enable a person skilled in

the art to practice the invention.[2] The district court specifically found that Yonescu's disclosure was made before the critical date and that "[t]his explanation was sufficient for Briceno to understand the method and write the software code to implement the method." *Id.* Because Robotic has not shown that these factual findings are clearly erroneous, we conclude that they support the court's determination that the invention was ready for patenting.

Robotic contends that Yonescu's disclosure to Briceno was not a disclosure of the claimed invention, as it demonstrated that more work was needed to determine whether the invention would work for its intended purpose. We disagree. Prior to *Pfaff*, we explained that: "[A] sale or a definite offer to sell a substantially completed invention, with reason to expect that it would work for its intended purpose upon completion, suffices to generate a statutory bar." *Robotic II* at 1167 (quoting *Micro Chem. Inc. v. Great Plains Chem. Co.*, 103 F.3d 1538, 1545, 41 USPQ2d 1238, 1244 (Fed. Cir. 1997)). The *invention* had to be substantially complete. However, in *Pfaff*, the Supreme Court supplanted the "substantially completed" standard applied by this court. *Pfaff*, 525 U.S. at 65-66, 48 USPQ2d at 1646 ("A rule that makes the timeliness of an application depend on the date when an invention is 'substantially complete' seriously undermines the interest in certainty."). The rules have thus

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2. In *Robotic II*, we indicated that, unless the software was completed before the critical date, the method itself could not have been on sale. *Robotic II* at 1167. However, under *Pfaff*, actual completion of such software is not required, provided that there is a disclosure that is sufficiently specific to enable a person skilled in the art to write the necessary source code to implement the claimed method.

changed. Focusing on the statutory language of § 102(b), the Court interpreted the term "invention" as requiring a complete *conception. Id.* at 66, 48 USPQ2d at 1646 ("The word 'invention' must refer to a *concept* that is complete, rather than merely one that is 'substantially complete.' " (emphasis added)). The Court then set forth the two-part test for determining when the on-sale bar applies. Notably absent from this test is a requirement that an inventor have complete confidence that his invention work will work for its intended purpose. Such confidence often must await a reduction to practice, which is a separate basis on which an invention may be shown to be ready for patenting.

In a footnote in its principal brief, Robotic cites two post-*Pfaff* decisions that purportedly stand for the proposition that evidence of an inventor's skepticism about the "workability of an invention" is a relevant factor in determining whether an invention is ready for patenting. *See Weatherchem Corp. v. J.L. Clark, Inc.*, 163 F.3d 1326, 49 USPQ2d 1001 (Fed. Cir. 1998); *STX, LLC v. Brine, Inc.*, 211 F.3d 588, 54 USPQ2d 1347 (Fed. Cir. 2000). In both of those cases, after having reached the conclusion that the inventions at issue were ready for patenting before the critical date, the court further noted that there was evidence that the patentees had confidence that their inventions were "complete and operative" before the critical date. *Weatherchem*, 163 F.3d at 1334, 49 USPQ2d at 1007; *STX*, 211 F.3d at 591, 54 USPQ2d at 1350. Thus, while the court provided additional factual support for the conclusion that the inventions were ready for patenting, we did not hold that lack of skepticism regarding the "workability of an invention" was an evidentiary requirement. It will be a rare case indeed in which an inventor has no uncertainty concerning the workability of his

invention before he has reduced it to practice. No such requirement will be applied here. Accordingly, the district court did not err in discounting Robotic's evidence that one of the inventors expressed skepticism as to whether the invention would work for its intended purpose. *See Robotic III* at 12 n.3 ("Stern's lack of credibility at trial aside, this is not the test under *Pfaff*. . . . Accordingly, the Court disregards Stern's alleged skepticism in its decision.").

Robotic also argues that the court erred in finding that an "internal" disclosure to a co-worker or subordinate employee "triggered the on- sale bar." Robotic contends that such a result would lead to the logical conclusion that an invention is ready for patenting at the time of conception, thereby obviating the need for a two-prong test for the on-sale bar. We disagree. First, the on-sale bar in this case was not triggered solely by an internal disclosure; rather it was triggered by a prior commercial offer for sale *and* a subsequent enabling disclosure that demonstrated that the invention was ready for patenting prior to the critical date. As we have previously explained, "[c]ompletion of the invention prior to the critical date, pursuant to an offer to sell that invention, would validate what had been theretofore an inchoate, but not yet established bar." *Robotic II* at 1168. Thus, without a commercial offer for sale, the timing of which is entirely within the control of the patentee, *Pfaff*, 525 U.S. at 67, 48 USPQ2d at 1646, an internal disclosure by itself would not satisfy the two-part test for an on-sale bar.

As for Robotic's related argument regarding conception, while it is true that in order for an "invention" to be on sale under § 102(b) there must be a complete conception, *id.* at 66, 48 USPQ2d at 1646 (defining the term "invention" in § 102(b) to

mean a complete conception), the test for determining whether that invention is complete also requires proof that the invention was enabled prior to the critical date. *Id.* at 67, 48 USPQ2d at 1646-47. Thus, in this case, the district court did not reach the conclusion that Robotic's invention was ready for patenting merely because the inventor's internal disclosure proved a complete conception; rather, the court concluded that the invention was ready for patenting because the inventor's disclosure was also an enabling disclosure, *i.e.*, one that was sufficiently specific to enable his co-worker, who was a person skilled in the art, to practice the invention.

Because the factual findings of the district court are not clearly erroneous and support the conclusion that Robotic's invention was the subject of a commercial offer for sale and ready for patenting prior to the critical date of June 24, 1991, we conclude that the district court did not err in holding claim 1 of the '227 patent invalid on the ground of the on-sale bar.

We have considered the parties' remaining arguments and conclude that they are either unpersuasive or unnecessary for resolution of this appeal. The cross- appeal is moot in view of our affirmance of the district court's decision on the ground of the on-sale bar.

CONCLUSION

For the foregoing reasons, we conclude that the district court did not err in holding claim 1 of the '227 patent invalid on the ground of the on-sale bar. Accordingly, we

AFFIRM.

APPENDIX B — FINDINGS OF FACT AND CONCLUSIONS OF LAW AND JUDGMENT OF THE UNITED STATES DISTRICT COURT FOR THE CENTRAL DISTRICT OF CALIFORNIA DATED AND FILED MARCH 29, 2000 AND ENTERED MARCH 30, 2000

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CV 95-7441 LGB (AJWx)

ROBOTIC VISION SYSTEMS, INC.,

Plaintiff,

v.

VIEW ENGINEERING, INC. and GENERAL SCANNING, INC.

Defendants.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

I. INTRODUCTION

On October 31, 1995, Plaintiff Robotic Vision Systems, Inc. ("RVSI" or "Plaintiff") brought this action against Defendants View Engineering, Inc. and General Scanning, Inc. Both Plaintiff and Defendant[1] are manufacturers, sellers, and exporters of

1. This case was filed on October 31, 1995. GSI was added by Plaintiff as a Defendant in RVSI's First Amended Complaint dated (Cont'd)

automated inspecting machines used to inspect items such as integrated circuits or computer chips. The allegedly infringed patent is patent no. 5,463,227 ("the '227 patent") issued to RVSI on October 31, 1995, the day the complaint was filed.

The Court ordered an expedited trial on the issue of the "on-sale" bar and related issues and a stay on all discovery not directly related to the matter of the "on-sale" bar and related issues. Defendant filed a summary judgment motion on this same issue on January 18, 1996.

By Order dated March 1, 1996, the Court granted View's motion for summary judgment finding that the '227 patent was invalid under the on-sale bar pursuant to 35 U.S.C. § 102 and for the failure to disclose the best mode requirement pursuant to 35 U.S.C. § 112. (Order dated March 1, 1996 [hereinafter "3/1/96 Order"]). On May 1, 1997, the Federal Circuit reversed this Court's determination that the patent was invalid because the best mode of practicing the invention, via software, was undisclosed. The Federal Circuit also reversed this Court's determination that the patent was invalid due to the on-sale bar and remanded the case for the determination of one sole issue: when was the software "substantially completed?" *Robotic*, 112 F.3d at 1165, 1168.

(Cont'd)
March 24, 1998. (IAC at ¶¶ 2, 10 (View became a wholly owned subsidiary of GSI in August of 1996 (Pl.'s 3rd Suppl. Contentions of Fact at 1 n.1; GSI Answer at ¶ 2). GSI and View filed counterclaims against RVSI for a Declaratory Judgment that the subject matter patent is invalid, on April 20, 1998. (GSI Answer, View Answer). For the purpose of this decision only, the Court will refer to both Defendants (View and GSI) as "View" or "Defendant."

Following this reversal by the Federal Circuit, the United States Supreme Court overruled the test used by the Federal Circuit in its reversal of this Court's finding of invalidity under the on-sale bar *Pfaff v. Wells Electronics, Inc.*, 119 S.Ct. 304, 311-12 (1999). Rejecting the Federal Circuit's "substantially complete" test, the Supreme Court adopted instead a requirement that "the invention must be ready for patenting" before the critical date. *Id.* at 312. Accordingly, although this Court remains charged by the Federal Circuit to resolve a discrete factual issue regarding the software for the '227 patent, the Court must now apply the Supreme Court's standard in its analysis. To this end, the Court conducted a court trial on the issues of the on-sale bar, alleged patent infringement, and damages.

Having considered the testimony presented at trial and the other evidence submitted by the parties, the Court FINDS for Defendant View and enters findings of fact and conclusions of law in accordance with its obligations under Federal Rule of Civil Procedure 52(c).

II. FINDINGS OF FACT

The following findings of fact are either undisputed or were proven by clear and convincing evidence.

A. The Parties

Plaintiff RVSI is a corporation organized and existing under the laws of the State of Delaware and having its principal place of business in Hauppage, New York. (RVSI 1AC at ¶ 1.) Defendant View is a corporation organized and existing under the laws of the State of California and having its principal place

of business in Simi Valley, California. (View Answer to IAC at ¶ 2.) Defendant General Scanning, Inc. ("GSI") is a corporation organized and existing under the laws of the State of Massachusetts and having its principal place of business in Simi Valley, California. (*Id.* at ¶ 2.)

B. The Invention

Integrated circuits or computer chips have metal connectors called leads that connect the chip to the other parts of the computer. The leads are subject to manufacturing error. To detect the errors, manufacturers use machines which inspect the chips automatically for common defects. The chips to be tested are placed in individual pockets in a tray. The tray is then scanned by a 3-D sensor which inspects the leads and compares the test results to a standard pattern. The chips with unacceptable leads are replaced. Some machines also develop a history of the effects for the manufacturer to use in improving their operation. (3/1/96 Order at 3-4.)

The concept of the '227 patent invention arose in December of 1990. (Stern Decl. 11/2/99 at ¶ 12.) Plaintiff's old technology, incorporated into its model LS-2000, involved a chip by chip scan. The newly patented method, also incorporated into the model LS-2000, scans corresponding sides of chips by moving through a complete row or column of chips in a tray without stopping. RVSI refers to this method as "column and row" and/or "full tray scanning." (Ext. 202 at ¶ 8; Reporter's Trial Transcript ("R.T.") Vol. 2 at 215.) The details of the software needed to perform the patented method are within the skill of a person of ordinary skill in the art to which the '227 patent pertains. (Ext. 236 at ¶ 15; R.T. Vol. 2 at 205.)

Appendix B

On February 8, 1991, Lafferty, an Intel representative, sent a communication to Earl Rideout of RVSI confirming his previous discussion with RVSI regarding the full-tray scanning method and inquiring about the progress of its implementation. (Ext. 256.) At the previous discussion, RVSI presented Lafferty with drawings and descriptions of column and row scanning and explained the method to him, which he understood. (Lafferty Dep., 9/7/99 at 7-8[2]; Ext. 364 at ¶ 2.)

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2. The testimony is as follows:

Q: Do you know how you first became aware of full tray scanning?

A: Discussions with RVSI personnel.

Q: Where were those discussions?

A: At RVSI.

Q: Can you elaborate on how those discussions took place?

A: I was at RVSI's facility reviewing their progress on the development of equipment for us and they proposed it as one of the techniques they were using or intended to use to improve the throughput of the system.

. . .

Q: How was full tray scanning explained to you?

A: Can you be more specific?

(Cont'd)

Appendix B

On March 14, 1991, Lafferty again visited RVSI and "evaluated the LS-2000 lead scanning system for the purpose of buying off that system for shipment to Intel." (Exs. 409, 410, 364 at ¶ 2.) In a letter dated March 19, 1991, Lafferty accepted RVSI's column and row scanning system as demonstrated to him and granted conditional buy-off approval of certain items. One of the items Intel needed to be addressed by June 3, 1991, was "Full-Tray scan capability, where the scan head moves the full length of the tray on each pass, rather than back and forth over each part." (Ext. 409; at Item 9.) RVSI's response to Intel's request for full-tray scanning was that "RVSI will provide this new capability as requested." (Ext. 410.)

This Court found previously that a sale to Intel Corporation ("Intel") of the full tray scanning method took place in March of 11, more than one year prior to the filing of the patent application.

(Cont'd)

Q: Was there a machine on-site that was used to help explain the full-tray scanning method to you?

A: When I first heard of full tray scanning there were no machines doing full tray scanning. Sketches were made on paper showing, you know, the parts lined up in a tray, showing the laser scanning the full length of the tray in a single pass.

Q: Were those sketches sufficient for you to understand the method?

A: Yes.

(Lafferty Dep., 9/7/99 at 7:10-17; 8:12-23.) RVSI failed to present evidence at trial to contradict Lafferty's testimony.

(3/1/96 Order at 12:5-6; 13:13-14.) This finding was undisturbed on appeal. *Robotic*, 112 F.3d at 1167.

Sometime between March and April of 1991, William Yonescu, a co-inventor of the column and row method, asked Daniel Briceno of RSVI to write the software for full-tray scanning. Yonescu fully explained full-tray scanning to Briceno. This explanation was sufficient for Briceno to understand the method and write the software code to implement the method. (R.T. Vol. 2 at 198-200.)

By May 22, 1991, Briceno had developed the code enabling the LS-2000 machine to perform the column and row method in Release 2.1 (Ext. 204 at ¶ 8.) After May 22, 1991, Briceno began "debugging"[3] the full-tray scanning code. (*Id.*)

After May 22, 1991, "as part of [his] continued development of the column and row software," Briceno developed software to enable the concepts of intelligent scan and zig-zag. (Briceno Tr. Decl. at ¶¶ 22-23.)

Intelligent scan is a method of inspecting chips, distinct from the column and row method, where information obtained from the leads of one side of a chip is used to locate and then measure the leads on the other side of the chip. (R.T. Vol. 1 at 91; Ext. 364 at ¶ 5; Rideout Decl. 11/2/99 at ¶ 21; Bilodeau Decl. 11/2/99 at ¶ 86.) Zig-zag, a separate method of inspecting chips that is also distinct from the column and row method, accounts

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3. At trial, Briceno testified that the debugging of a software code is a normal occurrence that continues after the writing of a program since software is never complete and always has bugs or problems. (R.T. Vol. 2 at 200-201.)

for chip movement within the pockets when the laser is scanning in one direction, whether mostly horizontally or vertically and must shift to a slightly different direction in order for the path of the swath to inspect a randomly oriented side of a chip. (R.T. Vol. 2 at 153-155.) The concepts of intelligent scanning and zig-zag attempted to resolve problems resulting from the combination of RVSI's use of a narrow swath on the sensor and the shifting of devices in the tray pockets either prior to or during scanning. (Briceno Decl. 11/2/99 at ¶¶ 20-29; R.T. Vol. 2 at 54, 63-64, 143-145, 153-155, 157-158; Bilodeau Decl. 11/2/99 ¶ 162; Ext. 202 at ¶ 9.) "Zig-zag is not part of [the '227] invention," and neither it nor intelligent scan is disclosed in the '227 patent. (Stern Decl. 11/2/99 at ¶¶ 30-34; R.T. Vol. 2 at 192-195; Bilodeau Decl. 11/2/99 at ¶ 162). The concepts are elements which RVSI engineers used to implement column and row scanning on the LS-2000 inspection machine, even though the column and row method could have been implemented by RVSI in different ways. (*Id.*) The concepts of intelligent scan and zig-zag are disclosed in a later patent (U.S. Patent No. 5,371,375 [hereinafter " '375"]) obtained by RVSI on December 6, 1994. (Ext. 239; R.T. Vol. 2 at 144-145.)

In early June, Briceno gave a copy of the software code labeling the column and row method to Steven Bilodeau, Executive Vice President of RVSI, who began testing the software code in mid-June, 1991. (Ext. 204 ¶ 11; R.T. Vol. 2 at 209.) The software ultimately used to implement full-tray scanning was contained in Release 2.2 which was released by Bilodeau on June 26, 1991. (Ext. 363 at ¶ 8; Ext. 235 at ¶ 9.)

An LS-2000 lead scanner was delivered and installed at Intel in May of 1991, as an initial evaluation unit. (Ext. 365 at

¶¶ 5-6.) RVSI filed its application for the '227 patent on June 24, 1992. *Robotic*, 112 F.3d at 1164. The '227 patent issued to RVSI on October 31, 1995. (Ext. 542 at 17.) Claim 1, the claim at issue in the instant case, recites the row and column scanning feature, referred to as full-tray scanning, and reads as follows:

> 1. A method for obtaining three-dimensional data from devices having corresponding sides, comprising the steps of: providing a multi-pocketed tray with tray pockets arranged in rows and columns; scanning sequentially with at least one three-dimensional sensor corresponding sides of said devices in a row or column; and repeating said scanning step for all rows and columns containing sides of said devices from which data is to be obtained.

(*Id.*)

III. LEGAL STANDARD

A patent is presumed to be valid and one challenging its validity bears the burden of proving invalidity by clear and convincing evidence. 35 U.S.C. § 282; *Mas-Hamilton Group v. LaGard, Inc.*, 156 F.3d 1206, 1216 (Fed. Cir. 1998). An inventor loses his right to a patent if he has placed his invention "in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States." *Ferag AG v. Quipp Inc.*, 45 F.3d 1562, 1566 (Fed. Cir. 1995); *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55, 119 S.Ct. 304, 307 (1998); 35 U.S.C. § 102.

Section 102(b) is designed in part to prevent "inventors from exploiting the commercial value of their inventions while deferring

the beginning of the statutory term." *Ferag AG*, 45 F.3d 1566. "Whether premature acts to commercially exploit a patented invention render the patent invalid is a question of law based on underlying issues of fact." *Weatherchem Corp. v. J.L. Clark, Inc.*, 163 F.3d 1326, 1331 (Fed. Cir. 1998).

Under the standard enunciated in *Pfaff*, the on-sale bar applies when two conditions are satisfied before the critical date. First, the product must be the subject of a commercial offer for sale more than one year before the application for the subject patent. *Pfaff*, 119 S.Ct. at 311. Second, the invention must be ready for patenting. *Id.* This latter condition may be satisfied in at least two ways: (1) by proof of reduction to practice before the critical date; or (2) by proof that prior to the critical date, the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention. *Id.* at 312. The Federal Circuit determined that this latter condition is satisfied if drawings or other descriptions of the invention prepared by the inventor, available prior to the critical date, were actually used to produce the subject matter invention. *Vanmoor v. Wal-Mart Stores, Inc.*, 2000 WL 12856, *3 (Fed. Cir. 2000).

VI. CONCLUSIONS OF LAW

The Court has jurisdiction over this action pursuant to 28 U.S.C. section 1338(a). Venue is proper under 28 U.S.C. section 1400(b). Although the Court has attempted to avoid commingling findings of fact with conclusions of law, any conclusions that are inadvertently labeled as findings (or vice versa) shall be considered in their true light, regardless of the label that the Court may have placed on them. *Tri-Tron Int'l v. A.A. Velto*, 525 F.2d 432, 435-36 (9th Cir. 1975).

Appendix B

The critical date for the purposes of triggering the section 102(b) on-sale bar is defined to be the date "one-year prior to the U.S. filing date to which the application was entitled." *Mas-Hamilton*, 156 F.3d at 1216. Because the patent application was filed on June 24, 1992. The critical date here for the purpose of 35 U.S.C. section 102(b) is June 24, 1991.

A. *Pfaff* Prong One: Offer for Sale

The first prong of the *Pfaff* test, whether the product was the subject of a commercial offer for sale more than one year before the application for the subject patent is met in the instant case. *Pfaff*, 119 S.Ct. at 311. In its 3/1/96 Order, this Court found that the "patented method was sold to Intel for profit" before the critical date. (3/1/96 Order at 13:12-14.) This finding was undisturbed on appeal. *Robotic*, 112 F.3d at 1163. Therefore, the issue in the instant case involves an analysis of the second prong of the *Pfaff* test, whether the invention embodied in the '227 patent was ready for patenting.

B. *Pfaff* Prong Two: Ready for Patenting

The second prong of the *Pfaff* test is satisfied in at least two ways: (1) by proof of reduction to practice before the critical date; or (2) by proof that prior to the critical date, the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention. *Pfaff*, 119 S.Ct. at 312.

In *Pfaff*, the Court held that the subject matter invention was ready for patenting because the drawings the inventor sent to the manufacturer before the critical date "fully disclosed the

invention." *Id.* at 307. In *Weatherchem*, the Federal Circuit held that the second prong of the *Pfaff* test was satisfied because the inventor had prepared detailed drawings of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention, because the manufacturer was able to readily produce samples of the invention from the drawings and specifications, and finally, because the order of a commercial quantity of the invention before the critical date showed the consumer's confidence that the invention was complete. *Weatherchem*, 163 F.3d at 1333. The Court found the invention ready for patenting despite problems in the design at the time the product was offered for sale, noting that all that needed to be done was some "fine tuning" of the invention. *Id.*; *STX, Inc. v. Brine, Inc.*, 37 F. Supp. 2d 740, 762-63 (D. Md. 1999) (rejecting argument that invention required "evaluation period" to determine whether invention worked for intended purpose). In addition, in *Vanmoor*, the Federal Circuit recently held that the condition was satisfied because the specification drawings, available prior to the critical date were actually used to produce the accused products. *Vanmoor*, 2000 WL 12856 at *3.

Here, the subject matter invention was ready for patenting prior to February 8, 1991 when RVSI described the invention (the path of the laser moving in a column and row format) to Lafferty in a manner sufficiently specific to enable a person skilled in the art to practice the invention. *Pfaff*, 525 U.S. 55, 119 S.Ct. at 311. Furthermore, even if the invention was not ready for patenting as of the date RVSI described the invention to Lafferty, the invention was ready for patenting between March and April of 1991 when Mr. Yonescu described the invention orally to Mr. Briceno in a manner sufficiently specific to enable a person skilled in the art (Briceno) to write the software code

that enabled the practice of the invention.[4] *Pfaff*, 525 U.S. 55, 119 S.Ct. at 311; (R.T. Vol. 2 at 200).

Moreover, the second prong of *Pfaff* is satisfied here because the subject matter invention was reduced to practice before the critical date. *Pfaff*, 119 S.Ct. at 312. The software for the claimed invention was reduced to practice by May 22, 1991, at the latest, when the draft of Release 2.1 contained sufficient software code to enable the LS-2000 machine to perform the column and row method. (Briceno Decl. 11/2199 at ¶¶ 18-20.) Briceno's further development of the column and row method software to enable the concepts of zig-zag and intelligent scan, the subject matter of a later patent, is irrelevant because the software enabling the column and row method, the subject matter of the '227 patent, was reduced to practice by May 22, 1991. Accordingly, the Court finds that the '227 invention was ready for patenting before the critical date of June 24, 1991.

VII. CONCLUSION

Based on the above findings of fact and conclusions of law, this Court holds that Defendant View has met its burden to prove

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4. Plaintiff argued at trial that the skepticism of Stern, one of the inventors of the column and row method, as to whether the invention would work via Plaintiff's LS-2000 machine, prevented the method from being ready for patenting. Stern's lack of credibility at trial aside, this is not the test under *Pfaff*. Under *Pfaff*, an invention is ready for patenting when the invention is either reduced to practice before the critical date or prior to the critical date the inventor had prepared drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention. *Pfaff*, 119 S.Ct. at 312. Accordingly, the Court disregards Stem's alleged skepticism in its decision.

by clear and convincing evidence that the invention constituting the subject matter covered by the '227 patent was both on sale and ready for patenting before the critical date of June 24, 1991, and hereby finds for View on its section 102(b) defense and counterclaim. Accordingly, the Court finds that the '227 patent is invalid.

IT IS SO ORDERED.

DATED: March 29, 2000 s/ Lourdes G. Baird
LOURDES G. BAIRD
United States District Judge

Appendix B

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CV 95-7441 LGB (AJWx)

ROBOTIC VISION SYSTEMS, INC.,

Plaintiff,

v.

VIEW ENGINEERING, INC. and GENERAL SCANNING, INC.

Defendants.

JUDGMENT

The Court hereby ORDERS, ADJUDGES, and DECREES that judgment in the above-captioned case be and hereby is ENTERED in favor of Defendants View Engineering, Inc. and General Scanning, Inc.

IT IS SO ORDERED.

DATED: March 29, 2000 s/ Lourdes G. Baird
LOURDES G. BAIRD
United States District Judge

APPENDIX C — OPINION AND JUDGMENT OF THE UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT DATED AND DECIDED MAY 1, 1997

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

96-1365

ROBOTIC VISION SYSTEMS, INC.,

Plaintiff-Appellant,

v.

VIEW ENGINEERING, INC.,

Defendant-Appellee.

DECIDED: May 1, 1997

Before LOURIE, CLEVENGER, and RADER, *Circuit Judges*.

LOURIE, *Circuit Judge*.

Robotic Vision Systems, Inc. appeals from the summary judgment of the United States District Court for the Central District of California holding that U.S. Patent 5,463,227 is invalid on the grounds of failure to disclose the best mode of carrying out the invention and violation of the on-sale bar. *Robotic Vision Sys., Inc. v. View Eng'g, Inc.*, No. 95-CV-7441 (C.D. Cal. Mar. 5, 1996). Because the district court erred in holding that the patent is invalid on the grounds of failure to comply with the

best mode requirement and the on-sale bar, we reverse-in-part, vacate-in-part, and remand.

BACKGROUND

The '227 patent discloses a method of using a three-dimensional sensor in order to scan and inspect the leads of integrated circuit chips. The method requires a device that contains motors for moving the sensor along an x-axis and a y-axis. The device also has an x-axis linear encoder and a y-axis linear encoder, which produce information relating to a position of the sensor along the corresponding axis. The patent contains a figure illustrating an embodiment of the machine which lacks means connected to the motors for controlling them, and the figure likewise lacks a connection to the linear encoders for receiving positional information. In addition, the specification does not indicate how the motors that move the sensor are controlled.

A prior art system scanned all four sides of one chip before inspecting the next chip. The method of the '227 invention scans rows and columns of chips, reducing the number of changes in the direction of the scanner when compared with the prior art method. This results in improved scanning time, because the reduced number of changes in direction translates into reduced numbers of scanner movements of acceleration and deceleration. Claim 1 of the patent is the only claim in question on appeal. It recites the row and column scanning feature, referred to as full-tray scanning, and reads as follows:

> 1. A method for obtaining three-dimensional data from devices having corresponding sides, comprising the steps of: providing a multi-pocketed tray with

> tray pockets arranged in rows and columns; scanning sequentially with at least one three-dimensional sensor corresponding sides of said devices in a row or column; and repeating said scanning step for all rows and columns containing sides of said devices from which data is to be obtained.

The application for the '227 patent was filed on June 24, 1992, and it thus has a critical date of June 24, 1991 for purposes of 35 U.S.C. § 102(b). In March 1991, before the critical date, Robotic employees agreed to a request from a representative of Intel to supply Intel with a full-tray scanning system. According to Robotic, the invention at that time was still in a developmental stage, involving rewriting the software program contained in a prior art system, adding new sections of software code, and testing the software in order to demonstrate that the invention would work effectively. The patent issued on October 31, 1995, and on that day Robotic sued View Engineering, Inc., alleging that certain of View's three-dimensional scanning machines infringed the patent.

View moved for summary judgment, arguing that the patent was invalid on the grounds of failure to disclose the best mode of carrying out the invention and violation of the on-sale bar. The district court granted View's motion, concluding that, at the time the application for patent was filed, the inventors knew that using software was the only mode of practicing the invention, that it was undisclosed, and that the patent was accordingly invalid. Our prior holding in *In re Hayes Microcomputer Prods., Inc. Patent Litigation,* 982 F.2d 1527, 1537-38, 25 USPQ2d 1241, 1248-49 (Fed. Cir. 1992), that disclosure of software code is not necessary if the functions of the software are disclosed was

distinguished on the ground that, contrary to *Hayes*, there was no disclosure at all in the patent that would lead one skilled in the art to use software. With respect to the on-sale bar, the court concluded that the full-tray scanning method was sufficiently developed before the critical date to trigger the bar. While the court noted that the software program for implementing the invention was completed in draft form in May 1991, before the critical date, it also noted that the invention does not depend upon software and thus that completion of the software program was not necessary to trigger the bar. Accordingly, the court held that there were no genuine issues of material fact and that View was entitled to judgment as a matter of law. Robotic now appeals to this court.

DISCUSSION

Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1576-77, 12 USPQ2d 1382, 1383 (Fed. Cir. 1989). Thus, summary judgment may be granted when no "reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). In determining whether there is a genuine issue of material fact, the evidence must be viewed in the light most favorable to the party opposing the motion, with doubts resolved in favor of the nonmovant. *Transmatic, Inc. v. Gulton Indus., Inc.*, 53 F.3d 1270, 1274, 35 USPQ2d 1035, 1038 (Fed. Cir. 1995). We review *de novo* a district court's grant of summary judgment. *Conroy v. Reebok Int'l, Ltd.*, 14 F.3d 1570, 1575, 29 USPQ2d 1373, 1377 (Fed. Cir. 1994).

Appendix C

A. *Best Mode*

Robotic argues that summary judgment was inappropriate because there were genuine issues of material fact concerning whether the specific software program used by Robotic was necessary for successfully carrying out the invention and therefore had to have been disclosed. Robotic argues that the court erred in concluding that software was the best mode known to the inventors of carrying out the invention. View responds that the inventors had a best mode, the nature of which they failed to disclose, and that that best mode included software. Robotic also argues that, since software is not part of the claims, it need not have disclosed software to satisfy the best mode requirement. In any event, Robotic argues that the specification is adequate to lead one of ordinary skill in the art to use software in the invention. View responds that no amount of skill in the art can overcome the lack of disclosure.

The patent statute requires that a patent specification "shall set forth the best mode contemplated by the inventor of carrying out his invention." 35 U.S.C. § 112 (1994). Determining whether a patent satisfies the best mode requirement involves two factual inquiries. First, a fact-finder must determine whether at the time an applicant filed an application for a patent, he or she had a best mode of practicing the invention, which is a subjective determination. Second, if the inventor had a best mode of practicing the invention, the fact-finder must determine whether the best mode was disclosed in sufficient detail to allow one skilled in the art to practice it, which is an objective determination. *United States Gypsum Co. v. National Gypsum Co.*, 74 F.3d 1209, 1212, 37 USPQ2d 1388, 1390 (Fed. Cir. 1996); *Chemcast Corp. v. Arco Indus. Corp.*, 913 F.2d 923, 927-28, 16 USPQ2d 1033, 1036 (Fed. Cir. 1990).

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We conclude that there is no genuine issue of material fact regarding the best mode and that the specification is not deficient concerning the disclosure of the best mode. As noted, the requirement to disclose the best mode of carrying out one's invention is statutory and one does not usually meet a statutory requirement for disclosure with silence. While a disclosure necessary to meet a statutory requirement is to be understood from the standpoint of one skilled in the relevant art, a certain basic disclosure is needed of the best mode. *Cf. Genentech, Inc. v. Novo Nordisk, A/S*, No. 96-1440, 1997 WL 110026, at *5 (Fed. Cir. Mar. 13, 1997) (stating that the knowledge of one skilled in the art may supplement a disclosure for purposes of satisfying the enablement requirement, but it is "not a substitute for a basic enabling disclosure"). Even an only mode must be disclosed, expressly or implicitly. Moreover, the fact that the use of software or a computer is not mentioned in the claims of the Robotic patent does not, contrary to Robotic's argument, exempt such use from the requirements of a best mode disclosure, since carrying out the invention usually involves more than what is expressly claimed.

On the other hand, the inventors in this case disclosed a device for carrying out their method, and it is plainly apparent that a computer, operating under software control, is to be interfaced to the device for controlling the movement of the sensor. Something must be connected to the device for providing control signals to the motors and for receiving information from the linear encoders concerning a position of the sensor, and there is no dispute that that something is a computer.

The facts support the conclusion that software is to be used. William Yonescu, one of the named inventors, averred in an affidavit that, as of the filing date of the patent, he and the other

inventors knew of no mode other than what was described in the specification. View cites a different portion of the same affidavit, in which Yonescu averred that, other than the software code developed to implement the invention, he and the other inventors "did not know of any other software program, code, or other mode which existed as of June 24, 1992, that was useful to carry out the mode disclosed in the specification of the '227 patent." View interprets this statement as an admission that at least two modes existed, the mode disclosed in the patent and the mode consisting of software, but we do not consider that this statement raises a genuine issue of fact. It is not an admission. It simply states that a software program was the only means contemplated of carrying out the invention. From the record before us, it is clear that a software program was involved in the carrying out of the invention and that no other mode existed.

Moreover, as asserted by Robotic, it would have been apparent to one skilled in the art, knowing that software was used in the prior art system, to use software for implementing the improved scanning method claimed in the patent. Yonescu averred that: "A person of ordinary skill in the art to which the '227 patent pertains would know and understand that software is needed to perform the patented method. The details of such software would also be within the skill of a person of ordinary skill in the art to which the '227 patent pertains." View has not provided a basis for concluding that Yonescu's assertions are not correct. Thus, one cannot conclude that a person skilled in the art would not have known that software was the best mode of carrying out the invention and how to implement it. The patent cannot be held to fail to comply with the best mode requirement for lack of the word "software," the use of which was plainly apparent to one skilled in the art. Such a disclosure was implicit in the specification.

Finally, it has not been shown that there is a genuine issue as to whether one skilled in the art would have known how to create specific source code for this purpose. We have previously held in *Hayes* and in *Fonar* (after the district court decided this case) that when disclosure of software is required, it is generally sufficient if the functions of the software are disclosed, it usually being the case that creation of the specific source code is within the skill of the art. *Fonar Corp. v. General Electric Co.*, Nos. 96-1075, 96-1106, and 96-1091, 1997 WL 76027, at *5 (Fed. Cir. Feb. 25, 1997); *Hayes*, 982 F.2d at 1537-38, 25 USPQ2d at 1248-49. The functions that a software program would instruct the computer to perform for controlling the machine are readily apparent from the specification of the patent at issue here, which describes the scan paths and parameters for full-tray scanning. View has not presented any evidence to controvert Robotic's assertion that one skilled in the art could generate the necessary software program to implement the disclosed functions. We therefore must conclude that the district court erred in granting summary judgment to View that the '227 patent is invalid for failure to disclose the best mode.

B. *The On-Sale Bar*

The district court also held the patent invalid on the ground that, by virtue of Robotic's acceptance of Intel's request in March 1991, the invention was on sale before the critical date. Robotic argues that, at the time of that acceptance, the invention was not sufficiently completed to have triggered the on-sale bar. View responds that the remaining development and testing related solely to software, which was not a part of the claimed invention. Thus, according to View, because Robotic was not working on a part of the invention that is recited in the claims, its alleged experimentation cannot prevent the imposition of the on-sale bar.

Appendix C

Application of the on-sale bar under section 102(b) is a question of law based upon underlying issues of fact. *See KeyStone Retaining Wall Sys., Inc. v. Westrock, Inc.*, 997 F.2d 1444, 1451, 27 USPQ2d 1297, 1303 (Fed. Cir. 1993). A determination that an invention was on sale within the meaning of the statute requires that "the claimed invention asserted to be on sale was operable, the complete invention claimed was embodied in or obvious in view of the device offered for sale, and the sale or offer was primarily for profit rather than for experimental purposes." *Id.* In explaining the application of the on-sale bar, we recently stated that:

> even though the technical requirements of a reduction to practice have not been met, a sale or a definite offer to sell a substantially completed invention, with reason to expect that it would work for its intended purpose upon completion, suffices to generate a statutory bar.

Micro Chem. Inc. v. Great Plains Chem. Co., 103 F.3d 1538, 1545, 41 USPQ2d 1238, 1244 (Fed. Cir. 1997); *see Seal-Flex, Inc. v. Athletic Track and Court Constr.*, 98 F.3d 1318, 1322, 40 USPQ2d 1450, 1452 (Fed. Cir. 1996) (stating that application of the on-sale bar requires consideration of whether "the invention was in fact complete and was known to work for its intended purpose").

The claimed invention in this case is a method. What Robotic is accused of putting on sale in March 1991 is a device for carrying out that method. Thus, an offer to sell the device (or otherwise provide it in a commercial context), if it met the requirements for an on-sale bar, would constitute a bar to the patentability of the

claimed method. However, an alleged offer to sell the device is not an on-sale bar to the patentability of the method unless the activities involving the device meet the criteria for the on-sale bar. In this case the software program, even though not recited in the claims, was necessary for the operation of the invention. Without workable software, there was no device that could have been on sale, and the method of using such a device therefore could not have been on sale. Since it is not clear from the record before us when the software was completed, we conclude that there is a genuine issue as to whether the making of the device was substantially completed before the critical date.

There is no question that a completed device necessary to carry out the claimed method did not exist in March 1991. Daniel Briceno, who wrote the software program for the prior art system, averred that when he subsequently rewrote the software program for the prior art system in order to implement the full-tray scanning concept, it was not until May 22, 1991, well after the alleged offer to sell, that it existed in a form that could be tested. He also stated that upon initial testing of the software program, the system did not work satisfactorily and that problems with the code were discovered. Thus, it is undisputed that the software program for implementing the invention was not even close to completion at the time of the alleged offer. The record in fact indicates that the invention was apparently completed in the latter part of June 1991, perhaps after the critical date.

The precise date when this occurred makes all the difference to the resolution of this case. That is because subsequent completion of an invention after the critical date does not relate back to the date of an earlier alleged offer of sale. An offer of sale, to be a bar within the meaning of section 102(b), must be

of an invention that is substantially complete at the time of the offer. *See Micro Chem.*, 103 F.3d at 1545, 41 USPQ2d at 1243. If mere discussions prior to the critical date, or even an agreement to develop and provide a device that had not yet been invented, developed, or completed were to be held to be a bar to patentability, then collaboration between inventors and customers would be greatly impeded. Patent applications would be required to be filed prematurely, before an invention was completed. The on-sale bar was not intended to prevent discussions between potential inventor-suppliers and customers concerning inventions not yet completed. Thus, the later completion of an invention concerning which an alleged offer to sell had been made earlier does not relate back to the date of that offer.

On the other hand, the record shows that the development of the software for the device in question was completed no later than soon after the critical date. We do not know whether in fact it might have occurred just prior to that date. If it did occur prior to that date, it clearly cannot be considered in isolation from the alleged offer since the development of the software was pursuant to the offer. Completion of the invention prior to the critical date, pursuant to an offer to sell that invention, would validate what had been theretofore an inchoate, but not yet established, bar. It would validate it, however, as of the date of that completion, not the date of the original offer. Completion after the critical date, even if pursuant to the offer, would not create a bar.

View argues that finalization of the software program was unnecessary for completion of the invention *as claimed* and that the invention as claimed could have been on sale without the

completion of the program. It notes that the claims of the patent do not expressly require software. As indicated above, however, the development of the software was essential to the substantial completion of the device to be provided to Intel for use in practicing the claimed method, even if it was not part of the claims. Without a substantially completed invention, there could be no on-sale bar.

We therefore conclude that there is a genuine issue of material fact relating to whether a statutory bar was created by the discussion with Intel concerning possible supply of a product for which the software program had not yet been developed. That issue is: when was the software completed? If it was completed before the critical date, then it validates the offer to sell the machine to be used in the method of the patent, and the patent is invalid because of the on-sale bar. If it occurred after the critical date, then the earlier offer was not an on-sale bar. The alleged offer by itself before the critical date could not have triggered the on-sale bar, as the invention was not substantially complete at that time. *See Micro Chem.*, 103 F.3d at 1545, 41 USPQ2d at 1244. Accordingly, the district court erred in granting summary judgment that the '227 patent is invalid on the ground of the on-sale bar. We therefore vacate the grant of summary judgment on that ground and remand for further fact-finding.

This case presents the interesting situation in which the use of software was sufficiently within the skill of the art so as to not run afoul of the best mode requirement, but it may not have been sufficiently developed by the critical date to cause an offer of the product to constitute an on-sale bar. The reason for this apparent inconsistency is that the relevant statutory provisions have different

purposes, one to promote prompt filing of patent applications after commercialization has begun, and the other to compel full disclosure of an invention. Knowledge of one skilled in the art is relevant to satisfaction of the best mode requirement, but such knowledge does not create a completed invention in an on-sale context when the invention at the time of the offer is nothing more than a concept for improving a method of using a prior art machine. The software program is an issue in both contexts, but in different ways.

CONCLUSION

The district court erred in holding that View was entitled to judgment as a matter of law that the patent was invalid for failure to disclose the best mode. With respect to the on-sale bar, the court erred in concluding that there was no genuine issue of material fact concerning whether the invention was on sale within the meaning of section 102(b). Accordingly, we reverse the summary judgment that the patent is invalid for failure to disclose the best mode, vacate the judgment that it is invalid based on the ground of the on-sale bar, and remand for further proceedings consistent with this opinion.

REVERSED-IN-PART, VACATED-IN-PART, AND REMANDED.

Appendix C

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

96-1365

ROBOTIC VISION SYSTEMS, INC.,

Plaintiff-Appellant,

v.

VIEW ENGINEERING, INC.,

Defendant-Appellee.

JUDGMENT

ON APPEAL from the UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF
CALIFORNIA

in Case NO(S). 95-CV-7441 LGB

This CAUSE having been heard and considered, it is

ORDERED AND ADJUDGED:

REVERSED-IN-PART, VACATED-IN-PART,
AND REMANDED

ENTERED BY ORDER OF THE
COURT

DATED MAY 01 1997 s/ Jan Horbaly
Jan Horbaly, Clerk

APPENDIX D — ORDER OF THE UNITED STATES DISTRICT COURT FOR THE CENTRAL DISTRICT OF CALIFORNIA GRANTING PARTIAL SUMMARY JUDGMENT DATED FEBRUARY 29, 1996, FILED MARCH 1, 1996 AND ENTERED MARCH 5, 1996

UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA

CV 95-7441 LGB (AJWx)

ROBOTIC VISION SYSTEMS, INC.,

Plaintiff,

v.

VIEW ENGINEERING, INC.

Defendant.

ORDER GRANTING PARTIAL
SUMMARY JUDGMENT

I. INTRODUCTION

The motion of Defendant View Engineering ("View") for summary judgment on the issue of the on-sale bar came on for hearing February 26, 1996. Upon consideration of all of the papers filed by counsel and oral argument of counsel, the Court hereby GRANTS Defendant's motion for summary judgment finding that Claim 1 of the patent-in-suit is invalid under 35 U.S.C. Sections 102(b), the on-sale bar, and 112, the best mode requirement.

Appendix D

II. BACKGROUND

A. Procedural Background

Plaintiff Robotic Vision Systems, Inc. ("RVSI") filed a Complaint for patent infringement against Defendant View on October 31, 1995. Both Plaintiff and Defendant are manufacturers, sellers, and exporters of automated inspecting machines for inspecting items such as integrated circuits or computer chips. The allegedly infringed patent is patent no. 5,463,227 ("the '227 patent") issued to RVSI on October 31, 1995, the day the complaint was filed. RVSI also filed an application for a temporary restraining order ("TRO") to enjoin the export of the allegedly infringing machine, View's Model 880. This Court denied the application for the TRO and ordered a hearing on the preliminary injunction in a minute order filed November 13, 1995.

The hearing on the request for preliminary injunction was held on December 4, 1995. In an Order filed December 6, 1995, this Court denied the request for preliminary injunction due to RVSI's failure to meet its burden of a clear showing that the patent is valid. In a minute order dated December 6, 1995, the Court ordered an expedited trial on the issue of the "on-sale" bar and related issues, a briefing schedule on Defendant's motion for summary judgment on this same issue, and a stay on all discovery not directly related to the matter of the "on-sale" bar and related issues.

Currently before the Court is Defendant View's motion for summary judgment on the issue of the patent's validity. View moves the court to find the patent invalid on two grounds:

(1) the invention described was sold or offered for sale more than one year before the filing date of the patent in violation of 35 U.S.C. Section 102(b), the "on-sale" bar; and (2) RVSI failed to meet the disclosure requirements of 35 U.S.C. Section 112.

This Court has jurisdiction under 28 U.S.C. Section 1338(a).

B. The Technology

Integrated circuits or computer chips have metal connectors called leads that connect the chip to the other parts of the computer. The leads are subject to manufacturing error. To detect the errors manufacturers use machines which inspect the chips automatically for common defects. The chips to be tested are placed in individual pockets in a tray. The tray is then scanned by a 3-D sensor which inspects the leads and compares the test results to a standard pattern. The chips with unacceptable leads are replaced. Some machines also develop a history of the defects for the manufacturer to use in improving their operation.

Plaintiff's old technology, incorporated into its model LS-2000, involved a chip by chip scan. The newly patented method, also incorporated into the model LS-2000, scans corresponding sides of chips by moving through a complete row or column of chips in a tray without stopping. RVSI terms this method "column and row" or "full tray scanning." (Second Yonescu Decl. ¶ 4.)[1] The full tray scan method requires software to run, but the software is *not* the invention. (*Id.* ¶ 15.)

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1. Declarations from William E. Yonescu and Steven Bilodeau were filed with RVSI's motion for preliminary injunction. These are hereinafter referred to "First Yonescu" and "First Bilodeau" declarations. The declarations submitted with RVSI's opposition to the instant motion are referred to as the "Second" declarations.

Appendix D

"Intelligent scan" or "smart scan" is a method of inspecting chips by using information obtained from the leads of one side of a chip in order to more precisely locate, and then measure, the leads on the other side of the chip. (Rideout Decl. ¶ 5; Second Bilodeau Decl. ¶ 9.) Intelligent scan is a method that is totally distinct from full tray scanning. (*Id.*)

C. Factual Background

Unless otherwise indicated, the following facts are uncontroverted:

1. Background

RVSI filed its application for the '227 patent on June 24, 1992. (Def.'s Facts No. 3.) The '227 patent issued to RVSI on October 31, 1995. Claim 1 of the '227 patent reads:

> 1. A method for obtaining three-dimensional data from devices having corresponding sides, comprising the steps of: providing a multi-pocketed tray with tray pockets arranged in rows and columns; scanning sequentially with at least one three-dimensional sensor corresponding sides of said devices in a row or column; and repeating said scanning step for all rows and columns containing sides of said devices from which data is to be obtained.

(Def.'s Facts No. 4.)

Appendix D

2. Commercialization of the Patent-In-Suit

The first design of the RVSI LS-2000 lead scanning machine, as it existed in early 1991, inspected the leads of chips one at a time, making several passes back and forth on the same side of an individual chip to gather information. (Pl.'s Facts No. 5.) In the spring of 1991, RVSI commenced development of a scan pattern for the LS-2000 that would scan an entire tray of chips by column and row. (Pl.'s Facts No. 5.)

During the week of March 11, 1991, RVSI's customer, Intel Corporation ("Intel"), attended a demonstration of the LS-2000. (Rideout Decl. ¶ 2.) RVSI demonstrated an LS-2000 that inspected chips one at a time. (*Id.*) RVSI also demonstrated software to Intel's representative, Daryl Lafferty, which allowed the LS-2000 to do "intelligent scanning." (Id. ¶ 4.)

In a letter dated March 19, 1991, Intel agreed to buy the LS-2000 pending demonstration of the required performance upon delivery. (*Id.* ¶¶ 6- 7, Ex. 1.) In the March 19, 1991 letter, Daryl Lafferty asked RVSI to "[a]dd Full-Tray scan capability, where the scan head moves the full length of the tray on each pass, rather than back and forth over each part." (Def.'s Facts No. 6; First Yonescu Decl. Ex. C, Item 9.) The request for full tray scan capability was item number nine in a list of items that Intel wanted by June 3, 1991. (*Id.*) RVSI responded, in a letter by Earl Rideout dated March 25, 1991, that "RVSI will provide this new capability as requested." (Def.'s Facts No. 7; First Yonescu Decl. Ex. B, Item 9.)

RVSI states that it commenced work on full tray scanning on April 11, 1991, and began testing the "full tray scanning code"

on May 22, 1991. (Pl.'s Facts No. 7(a).) The Court notes that the method of full tray scanning, column and row, is not the same as full tray scanning *code*, which is the software that makes the column and row method useful. RVSI states that the software is not the claimed invention; it is "the engine that drives the machine." (Second Yonescu Decl. ¶ 15.)

Mr. Briceno started testing the software on May 22, 1991. (Briceno Decl. ¶ 9.) Mr. Briceno gave the software to Mr. Bilodeau in mid-June 1991 to perform additional testing. (*Id.* ¶ 11; Second Bilodeau Decl. ¶¶ 19-20.) Mr. Bilodeau tested the software and the equipment it controlled. (Second Bilodeau Decl. ¶ 20.)

Notably, RVSI does not controvert Defendant's fact number 7, the fact that RVSI promised full-tray scanning capability to Intel on March 25, 1991. (Pl.'s Facts No. 7(a)-(k).) "Full tray scanning" is the term used at RVSI to refer to the method described in the '227 patent-in-suit. (Pl.'s Facts No. 8(a); Def.'s Facts No. 8.) RVSI never asserts when the full-tray scan *method* was developed. RVSI does state that an LS-2000 lead scanner was delivered and installed at Intel in May 1991, as an initial evaluation unit. (Smith Decl. ¶¶ 5-6). By "sometime in August" RVSI had completely upgraded this machine to run the patented method. (Id. ¶ 7.) The software needed to run the patented method was *released* June 26, 1991; it was completed in draft form on May 22, 1991. However, the software is not the invention. (Pl.'s Facts No. 10(a).)

3. Disclosure in the Patent

On June 26, 1991, Mr. Bilodeau authorized Releases 2.2, the software code for full-tray scanning, which is used to practice

the patented method. (Pl.'s Facts No. 9(d)-(e).) Defendant reminds the Court that "RVSI characterized Release 2.2 as so critical to the patent-in-suit that 'the inventive method was not complete until June 26, 1991,' when the software was completed." (Def.'s Facts No. 9, citing RVSI's Preliminary Injunction Reply P. & A. at 11.) RVSI controverts this fact by stating: "The software program is *not* the invention of the '227 patent; it is merely the engine that drives the machine used to carry out the method disclosed in the '227 patent. A person or ordinary skill in the art to which the '227 patent pertains would know and understand that software is needed to perform the patented method. The details of such software would also be within the skill of a person or ordinary skill in the art to which the '227 patent pertains." (Pl.'s Facts No. 10(a); Second Yonescu Decl. ¶ 15.)

Neither Release 2.2 nor any other software is disclosed in the '227 patent. (Def.'s Facts No. 11.)

III. ANALYSIS

A. LEGAL STANDARD FOR SUMMARY JUDGMENT

Summary judgment must be entered against a party who, after adequate time for discovery and upon motion, fails to make a showing sufficient to establish an element essential to that party's case, and on which that party would bear the burden of proof at trial. Fed. R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986). A party moving for summary judgment may carry its initial burden by pointing out to the district court that there is an absence of a genuine issue of material fact. *Id.* at 323.

To avoid summary judgment, the non-movant must set forth specific facts showing that there remains a genuine issue of material fact for trial. *Id.* at 324. A factual dispute is genuine if a reasonable jury could return a verdict for the non-moving party. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). The evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in the non-movant's favor. *Id.* at 255. If the non-moving party's evidence is merely colorable or is not significantly probative, then summary judgment may be granted. *Id.* at 249-50.

B. DISCUSSION

1. The "On-sale" Bar

35 U.S.C. Section 102(b) provides that " [a] person shall be entitled to a patent unless — . . . (b) the invention was . . . on sale in this country, more than one year prior to the date of the application for patent in the United States." An offer to sell is sufficient under the policies animating the statute, which proscribes not a sale, but a placing "on sale." *King Instrument Corp. v. Otari Corp.*, 767 F.2d 853, 860 (Fed. Cir. 1985), *cert. denied*, 475 U.S. 1016 (1986).

To invalidate a patent under the on-sale bar, the party asserting the bar must demonstrate by clear and convincing evidence:

(1) that there was a definite sale or offer to sell more than one year before the application for the subject patent; and

(2) that the subject matter of the sale or offer to sell fully anticipated the claimed invention or would have rendered the claimed invention obvious[2] by its addition to the prior art.

UMC Electronics Co. v. United States, 816 F.2d 647, 656 (Fed. Cir. 1987), *cert. denied*, 484 U.S. 1025 (1988). "The ultimate determination that a product was placed on sale under section 102(b) is a question of law, based on underlying facts." *Ferag AG v. Quipp, Inc.*, 45 F.3d 1562, 1566 (Fed. Cir.), *cert. denied*, 116 S.Ct. 71 (1995); *UMC*, 816 F.2d at 657.

The determination depends on the totality of the circumstances, not one particular factor. The underlying policies are what drives the analysis. *Ferag*, 45 F.3d at 1566; *UMC*, 816 F.2d at 654. "Foremost among these is the policy of preventing inventors from exploiting the commercial value of their inventions while deferring the beginning of the statutory term." *Ferag*, 45 F.3d at 1566. For this reason, inventors are strictly held to the requirement that they file their patent application within one year of any attempt to commercialize the invention. *Id.*

a. Sale or Offer to Sell

In the case at bar the patent application date is June 24, 1992. Therefore, the critical date is June 24, 1991. On March

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2. Non-obviousness subject matter is a condition for patentability under 35 U.S.C. Section 103 which provides: "A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

19 1991, Intel Corporation purchased a RVSI LS-2000 and asked RVSI to add full-tray scanning capability to it. (Lafferty Letter, Second Yonescu Decl. Ex. 1.) On March 25 1991, RVSI agreed to provide this new capability as requested. (Rideout Letter, Second Yonescu Decl. Ex. 2.)

RVSI argues that Lafferty granted conditional buy-off approval on an LS-2000 with intelligent scan.[3] Full tray scan was not demonstrated to Lafferty because it did not exist at the time of the March demonstration. RVSI acknowledges that Mr. Lafferty, in the list of needed items attached to his March 19th letter of conditional buy-off approval, specifically asked for full tray scanning capability.[4] RVSI asserts that although such capability did not exist, RVSI agreed in its March 25, 1991 letter "to attempt to meet an aggressive, potentially unachievable objective." (Second Yonescu Decl. ¶ 8.) This does not change the fact that RVSI agreed to provide full tray scanning by June 3, 1991, to Intel. In other words, RVSI made a sale; at what point the invention became more than a concept is the issue.[5]

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3. Again, intelligent scan is a method of inspecting chips, distinct from full tray scan, where information obtained from the leads of one side of a chip is used to locate and then measure the leads on the other side of the chip.

4. The Court cannot help but wonder how Lafferty knew to request the method by name if it was only a concept, but all inferences are drawn in favor of the non-movant.

5. "If the inventor had merely a conception or was working towards development of that conception, it can be said there is not yet any 'invention' which could be placed on sale." *UMC*, 816 F.2d at 657.

UMC Electronics, 816 F.2d at 647, is instructive. The United States Navy awarded the patent holder, UMC, a contract for 1600 accelerometers. *Id.* at 650. The accelerometer as it existed at the time could not perform to the Navy's specifications. UMC went to work on improving it. *Id.* In April-May 1967 UMC built and tested a prototype of an improved model. *Id.* In response to a solicitation by the Navy, on July 27, 1967, UMC sent a proposal to the Navy offering to supply $1,668,743 worth of its improved model, even though the model required further development. *Id.* On August 2, 1967, UMC submitted technical details including test results. On August 9, UMC demonstrated the device. The Navy did not purchase from UMC. *Id.* The critical date was August 1, 1967. *Id.* at 649.

The *UMC* court found that the July 27, 1967, proposal constituted an offer for profit, not to conduct experiments, and consequently, the claimed invention was on sale more than one year prior to the filing of the application. *Id.* at 657. The court concluded "from the unchallenged facts with respect to the commercial activities of UMC, coupled with the extent to which the invention was developed, the substantial embodiment of the invention, the testing which was sufficient to satisfy the inventor that his later claimed invention would work, and the nature of the inventor's contribution to the art, that the claimed invention was on sale within the meaning of section 102(b)." *Id.*

In the case at bar, RVSI sold an LS-2000 in March 1991 to Intel. Intel requested full tray scanning in its letter of purchase. RVSI agreed to provide it by June 3, 1991, and went to work on the patented method in March or April of 1991. On May 22, 1991, Mr. Briceno completed the draft of the software to drive the full tray scan. (Briceno Decl. ¶ 8.) The code was then tested

in house by Mr. Bilodeau. Mr. Bilodeau released the Version 2.2 software that drives the patented method on June 26, 1991.

In May 1991 RVSI delivered an LS-2000 lead scanner with the old one chip at a time technology to Intel. (Smith Decl. ¶ 7.) Subsequently, RVSI upgraded the hardware and software on the LS-2000 at Intel. (*Id.*) Sometime in August 1991, RVSI installed the software that allowed full tray scanning on the LS-2000 at Intel. (*Id.*) The critical date in this case is June 24, 1991.

From these facts the Court may conclude that the patented method was more than a concept prior to the critical date. The patented technology was promised to a customer on March 25, 1991. The software was drafted by May 22, 1991. A working model of the hardware and software was being tested as of mid-June, 1991. As a result, the totality of the evidence is sufficient to conclude that the patented method was on sale. *See Sonoscan, Inc. v. Sonotek, Inc.*, 936 F.2d 1261, 1263 (Fed. Cir. 1991) (concluding where quotation made, inventor knew of the circuitry needed, schematic diagram existed, and prototype was done before the critical date, that invention was on sale). In addition, the patented method was sold to Intel for profit, not as part of a research and development contract. RVSI presents no evidence that the intended customer was participating in development and testing of the patented method. *See Continental Can Co., USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1269 (Fed. Cir. 1991) (development agreement provided that customer would test product for manufacturer).

Although delivery was not completed until August 1991, the Court finds that a sale of the full tray scanning method took

place more than one year prior to the filing of the application. Such a finding is consistent with the policies animating the statute. To allow a sale of an invention completed prior to the critical date, with only delivery taking place after the critical date, would contravene the policy of preventing commercial exploitation of the invention substantially beyond the statutorily authorized period.

b. Subject Matter of Sale

Item nine of the Lafferty and Rideout letters references "full tray scanning" which is the patented method. RVSI agreed to upgrade the LS-2000 sold in March of 1991 with the patented method by June 3, 1991. Intel received the software to drive the patented method in August of 1991. (Smith Decl. ¶ 7.) Thus, the Court finds that the subject matter of the sale was the method of the patent-in-suit.

Based on the foregoing, View has established at least a prima facie case of the on-sale bar. *UMC*, 816 F.2d at 657. RVSI commercialized the patented method more than one year prior to the filing of its application. This contravenes the policy underlying the statutory scheme. The burden shifts to RVSI to counter the prima facie case.

RVSI offers only that the invention was not completed until a date after the critical date of June 24, 1991. This is the same argument offered in *UMC*. *Id.* at 657 (no complete embodiment of the invention existed at the time of the sale). Looking at "the realities of the development of [the] invention," the court found the argument unavailing. *Id.* the result is the same here. By RVSI's admission the development required to complete the invention was the software to drive it. That software is not part of the

patented method. Therefore, what was sold to Intel was more than a mere concept prior to the critical date. Based on the facts of this case, the Court finds that RVSI has not met its burden in countering Defendant's prima facie case that Claim 1 of the patent is invalid. Therefore, the Court GRANTS View's motion for summary judgment on the ground that Claim 1 of the '227 patent is invalid.

2. Enablement

35 U.S.C. Section 112 provides in pertinent part:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.

"Invalidity for lack of enablement is a conclusion of law and must be supported by facts proved by clear and convincing evidence, for the grant of the patent by the PTO carries with it the presumption of validity including compliance with Section 112." *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931, 941 (Fed. Cir.), *cert. denied*, 498 U.S. 920 (1990). When the challenged subject matter is a computer program that implements a claimed device or method, enablement is determined from the viewpoint of a skilled programmer. *Id.*

RVSI said in its preliminary injunction reply brief that "the invention method was not complete until June 26, 1991," the date of the software release. (RVSI Prelim. Inj. Reply Br.

at 11.) View bases its argument that the software should have been disclosed in the patent on RVSI's statement of its importance.

RVSI clarifies in its opposition to the instant summary judgment motion that the software is not the invention. (Opp. at 16.) Mr. Yonescu declares that "[a] person of ordinary skill in the art to which the '227 patent pertains would know and understand that software is needed to perform the patented method. The details of such software would also be within the skill of a person of ordinary skill in the art to which the '227 patent pertains." (Second Yonescu Decl. ¶ 15.)

The Court finds that View has failed to meet its burden that the '227 patent fails as a matter of law to meet the enablement requirement. Consequently, the Court DENIES View's motion for summary judgment on this ground.

3. Best Mode

Section 112 also requires that the specification "shall set forth the best mode contemplated by the inventor of carrying out his invention. Thus, separate and distinct from enablement, best mode requires that the inventor disclose the best mode contemplated by her, as of the time she files the application, for carrying out her invention. *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1532 (Fed. Cir.), *cert. denied*, 484 U.S. 954 (1987).

RVSI argues that "details of software are not a rigid requirement of enabling" to support its position on the issue of best mode. (Pl.'s Opp. at 19.) However, the case law emphasizes

that the analysis of the two issues, enabling and best mode, is distinct. "A specification can be enabling yet fail to disclose an applicant's contemplated best mode. Indeed, most of the cases in which we have said that the best mode requirement was violated addressed situations where an inventor failed to disclose non-claimed elements that were nevertheless necessary to practice the best mode of carrying out the claimed invention." *Chemcast Corp. v. Arco Industries Corp.*, 913 F.2d 923, 928 (Fed. Cir. 1990) (citations omitted); *Spectra-Physics*, 827 F.2d at 1537.

Relying on *Spectra-Physics*, 827 F.2d at 1532, View argues that the best mode requirement imposed an obligation on RVSI to disclose the software as the best mode of carrying out the invention. If "the applicant develops specific instrumentalities or techniques which are recognized at the time of filing as the best way of carrying out the invention, then the best mode requirement imposes an obligation to disclose that information." *Id.* Here, View contends that the software is an instrumentality recognized at the time of filing as the best way of carrying out the invention.

RVSI relies on *In re Hayes Microcomputer Products Patent Lit.*, 982 F.2d 1527 (Fed. Cir. 1992) where the court used the following two part test:

> A best mode analysis has two components. The first inquiry focuses on whether the inventor knew of a mode of practicing his invention at the time he filed his patent application which he considered to be better than any other. This determination is subjective, focusing on the inventor's state of mind at the time he filed his application. If he did have a best mode, the next question is whether he disclosed it and did

> so adequately to enable one of ordinary skill in the art to practice the best mode. This is an objective determination. There must be concealment[6] of a mode known by the inventor to be better than that which is disclosed.

Id. at 1536.

RVSI argues that under *Hayes* details of software are not a rigid requirement of the best mode requirement. In Hayes, the court found that the patent only disclosed the "general function of the firmware without teaching mathematical formulas, flow charts, or a firmware program listing," and no more was needed. *Id.* at 1537. However, Hayes is easily distinguished. Here, RVSI did not disclose the general function of the software and simply fail to provide unnecessary details. The '227 patent does not contain any mention of software.

Rather, applying the two-step test outlined in *Hayes*, it appears that RVSI was required to disclose its software. The first prong of the test requires that the inventor at the time of the application knew of a mode considered by him to be better than any other. Here, Mr. Yonescu states that the RVSI software was the only mode known to him to practice the patented method. (Second Yonescu Decl. ¶ 15.) Consequently, the Court finds that the inventor knew the software was the only mode at the time of the filing of the application.

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6. The concealment need not be intentional. Only evidence of concealment, whether accident or intentional, is required. *Spectra-Physics*, 827 F.2d at 1536.

The second part of the inquiry is whether the disclosure was adequate. RVSI did not disclose that its software was needed to carry out the '227 patent. RVSI maintains that disclosure was not necessary because anyone skilled in the art would know software is needed. Mr. Yonescu further states that: "No specific code is vital to practice the invention." (*Id.* ¶ 16.) However, the claim that the RVSI code is a simple generic bit of programming is completely inconsistent with RVSI's position that the patented method was only a hope until the software was fully tested by Mr. Bilodeau. (Pl.'s Supp. Opp. at 2.)

> The best mode requirement . . . is intended to ensure that a patent applicant plays "fair and square" with the patent system. It is a requirement that the *quid pro quo* of the patent grant be satisfied. One must not receive the right to exclude others unless at the time of filing he has provided an adequate disclosure of the best mode known to him of carrying out his invention. Our case law has interpreted the best mode requirement to mean that there must be no concealment of a mode known by the inventor to be better than that which is disclosed.

Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd., 927 F.2d 1200, 1209-10 (Fed. Cir. 1991).

Mr. Bilodeau testified regarding the patented method, "I can't think of any way you can do it without some form of software." (Bilodeau Dep. at 35:20-21.) Mr. Yonescu testified that "[w]e can do nothing without software." (Yonescu Dep. at 16:22.) Thus, RVSI failed to disclose what it acknowledges is the only way to carry out the patented method. In so doing,

RVSI violated the *quid quo pro* principle of Section 112. Consequently, the Court GRANTS Defendant View's motion for summary judgment on the issue of best mode disclosure.

4. Claims 2 and 3 of the '227 Patent

RVSI's complaint alleges that View infringes upon one or more claims of the '227 patent. In its motion for a preliminary injunction RVSI focused exclusively on View's alleged infringement of Claim 1 of the patent. "The determination of whether the 880 infringes is made by comparing the 880 to the claim it is accused of infringing: Claim 1 of the Patent." (RVSI's P. & A. for Prelim. Inj. at 8.) The Court based its ruling on this allegation: "RVSI alleges that model 880 literally infringes Claim 1 of the '227 patent." (Court's Dec. 6, 1995 Order at 8.)

RVSI raises, for the first time, in its opposition to View's motion for summary judgment the issue of Claims 2 and 3 of the '227 patent. Claim 2 describes a method for aligning devices in the multi-pocketed tray that involves a directional vibration of the tray that drives all devices to the same side of the pockets. (Compl. Ex. A at 21.) Claim 3 describes a method for obtaining three-dimensional data from sides of the devices in the multi-pocketed tray via repeated sequential scanning of the sides of the devices with at least one three-dimensional sensor. (*Id.*)

RVSI argues that because View fails to address Claims 2 and 3 its motion for summary judgment the Court cannot invalidate the entire patent. It is true that under the law, "each claim is a separate statement of the patented invention." *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211, 1220 (Fed. Cir. 1995).

View responds in its reply with a declaration from Robert Freiberg, vice president of program management and engineering for View, who declares that " [n]one of View's machines vibrate a tray to align the devices in that tray." (Freiberg Decl. ¶ 4.)

It appears that to continue the case solely on allegations of infringement of Claims 2 and 3 would be unproductive, but it is not an issue properly before the Court at this time.

IV. CONCLUSION

The Court hereby GRANTS Defendant's motion for summary judgment on the ground that Claim 1 of the '227 patent is invalid due to the on-sale bar and failure to disclose the best mode.

SO ORDERED.

Dated: Feb. 29, 1996

s/ Lourdes G. Baird
LOURDES G. BAIRD
United States District Judge

APPENDIX E — RELEVANT STATUTES

35 U.S.C. § 101

§ 101. Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

* * *

35 U.S.C. § 102

§ 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless —

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by

the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or

(e) The invention was described in —

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a); or

(f) he did not himself invent the subject matter sought to be patented, or

(g)(1) during the course of an interference conducted under section 135 or section 291, another inventor involved therein establishes, to the extent permitted in section 104, that before such person's invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or **(2)** before such person's invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

* * *

35 U.S.C. § 112

§ 112. Specification

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Appendix E

A claim may be written in independent or, if the nature of the case admits, in dependent or multiple dependent form.

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.

A claim in multiple dependent form shall contain a reference, in the alternative only, to more than one claim previously set forth and then specify a further limitation of the subject matter claimed. A multiple dependent claim shall not serve as a basis for any other multiple dependent claim. A multiple dependent claim shall be construed to incorporate by reference all the limitations of the particular claim in relation to which it is being considered.

An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

* * * *